

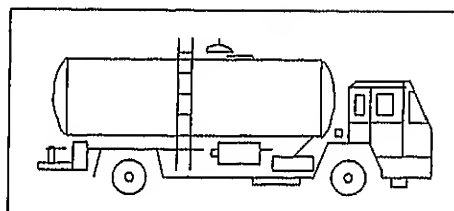
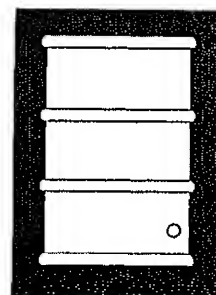
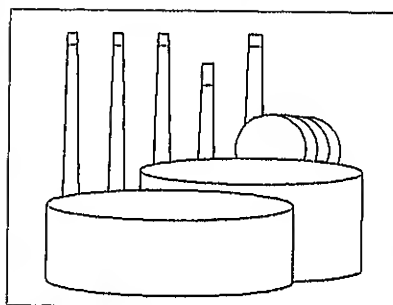
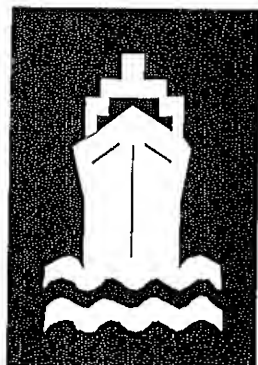
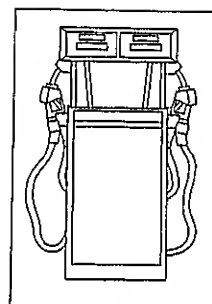
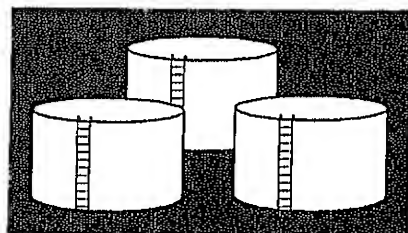
Data for Week Ended:  
August 20, 1993

# Weekly Petroleum Status Report

Includes:

Short-Term Energy Outlook  
(See Page 2)

Monthly Oxygenate Summary  
(See Page 33)



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# Preface

The *Weekly Petroleum Status Report* (WPSR) provides timely information on the petroleum supply situation in the context of historical information, selected prices, and forecasts. The WPSR is intended to provide up-to-date information to the industry, the press, planners, policymakers, consumers, analysts, and State and local governments. It is published each Thursday by the Energy Information Administration (EIA) and excerpts of the data are available electronically after 5 p.m. Wednesday. The data contained in this report are based on company submissions for the week ending 7 a.m. the preceding Friday. For some weeks which include holidays, publication of the WPSR is delayed by 1 day. The WPSR is not published during 1 of the last 2 weeks of the year depending upon which day of the week Christmas occurs. The following week's issue includes data for both weeks.

General information about this document may be obtained from Charles C. Heath (202) 586-6860, Director of the Petroleum Supply Division, Office of Oil and Gas, Energy Information Administration; or Morris H. Rice (202) 586-4634, Chief of the Statistical Analysis Branch.

Specific information about the data in this report may be obtained from Larry J. Alverson (202) 586-9664 or Diana House (202) 586-9667.

Specific questions concerning the Petroleum Export Modeling System (PEMS) may be directed to Carol L. French (202) 586-9888 or Betty Barlow (202) 586-8746.

Specific questions about the data in Appendix B, EIA-819M, "Monthly Oxygenate Telephone Report", may be directed to Stephen Patterson (202) 586-5994.

Specific questions pertaining to monthly propane stock data for Petroleum Administration for Defense Districts I, II, and III, published in Appendix C, may be directed to Stacey Ungerleider (202) 586-5130. These data will be available June through September 1993.

# Contents

Highlights.....	1
Short-Term Energy Outlook .....	2
Sources .....	28
Appendix A:	
Explanatory Notes .....	29
Appendix B:	
Oxygenate Summary.....	33
Explanatory Notes.....	36
Appendix C:	
Propane Summary.....	39
Explanatory Notes.....	42
Glossary.....	45
Energy Information Administration Electronic Publication Systems (EPUB) User Instructions .....	47
Tables	
1. U.S. Petroleum Balance Sheet, 4 Weeks Ending 08/20/93 .....	3
2. U.S. Petroleum Activity, 1992 to Present.....	4
3. Stocks of Crude Oil and Petroleum Products, U.S. Totals, 1992 to Present.....	6
4. Stocks of Motor Gasoline by Petroleum Administration for Defense District (PADD), 1992 to Present .....	8
5. Stocks of Distillate Fuel Oil by Petroleum Administration for Defense District (PADD), 1992 to Present .....	10
6. Stocks of Residual Fuel Oil by Petroleum Administration for Defense District (PADD), 1992 to Present .....	12
7. U.S. Imports of Petroleum Products by Product, 1992 to Present .....	14
U.S. Imports of Crude Oil and Petroleum Products, 1992 to Present .....	15
U.S. Petroleum Products Supplied, 1992 to Present .....	16
U.S. Refiner Acquisition Cost of Crude Oil, 1990 to Present.....	17
8. U.S. Average Retail Selling Prices of Motor Gasoline and Residential Heating Oil, 1990 to Present .....	17
9. World Crude Oil Prices.....	18
10. Spot Market Product Prices, Rotterdam and New York .....	20
11. PADD and PADD Weekly Estimates, Most Recent 5 Weeks.....	22
12. Other Summary, Selected U.S. Cities .....	26
13. Petroleum Balance Sheet Week Ending 08/20/93 .....	27

# Highlights

## Refinery Activity (Million Barrels per Day)

	Four Weeks Ending		
	08/20/93	08/13/93	08/20/92
Crude Oil Input to Refineries .....	14.1	14.2	13.6
Refinery Capacity Utilization (Percent) ..	94.3	94.8	90.0
Motor Gasoline Production .....	7.3	7.3	6.9
Distillate Fuel Oil Production .....	3.2	3.3	2.9

See Table 2.

Refinery utilization and motor gasoline production for the 4 weeks ending August 20, 1993, were 5 percent higher than for the 4 weeks ending August 20, 1992. Distillate fuel oil production was 11 percent higher than a year ago.

## Stocks (Million Barrels)

	Week Ending		
	08/20/93	08/13/93	08/20/92
Crude Oil (Excluding SPR) .....	343.8	348.5	329.9
Motor Gasoline .....	202.0	207.7	206.6
Distillate Fuel Oil .....	125.5	122.9	119.6
All Other Oils .....	404.5	406.2	394.4
Crude Oil in SPR .....	583.8	583.6	569.9
Total*	1,659.6	1,668.9	1,620.4

See Table 3.

Crude oil stocks decreased 4.7 MMB but were 13.9 MMB higher than a year ago at this time. Distillate fuel oil stocks were 2 percent higher than the previous week. Motor gasoline stocks decreased 5.7 MMB during the week, and were 2 percent lower than a year ago at this time. The current level is below the seasonally-adjusted average range for this time of year. These stocks do not include stocks of oxygenates (MTBE and fuel ethanol) which will be blended into gasoline to raise the oxygen level and octane rating. At the end of July, stocks of MTBE were about 16.0 MMB and stocks of fuel ethanol were about 2.5 MMB.

## Net Imports (Million Barrels per Day)

	Four Weeks Ending		
	08/20/93	08/13/93	08/20/92
Crude Oil .....	6.2	6.1	6.5
Petroleum Products .....	1.1	1.1	1.0
Total*	7.3	7.3	7.5

See Table 1.

Net imports of crude oil during the 4 weeks ending August 20, 1993, were 3 percent below those for the same period last year. Net imports of petroleum products were 4 percent higher than a year ago.

## Products Supplied (Million Barrels per Day)

	Four Weeks Ending		
	08/20/93	08/13/93	08/20/92
Motor Gasoline .....	7.8	7.7	7.5
Distillate Fuel Oil .....	3.1	3.2	2.7
All Other Products .....	6.9	6.8	6.8
Total*	17.8	17.7	17.0

See Table 9.

Distillate fuel oil supplied for the 4 weeks ending August 20, 1993, was 13 percent above last year's level. Total products supplied were 5 percent higher than last year's level. Motor gasoline product supplied was 4 percent above last year's level. When the 1992 data were adjusted for fuel ethanol and motor gasoline blending components the 1993 data were 2 percent above last year's level.

## Prices (Dollars per Barrel)

	Week Ending		
	08/20/93	08/13/93	08/21/92
World Prices			
World Crude Oil .....	15.52	15.15	18.70
Spot Market Product Prices <sup>1</sup>			
Rotterdam Market			
91 RON Unleaded Gasoline .....	20.98	20.87	24.38
Gas Oil .....	21.65	21.31	22.86
Residual Fuel Oil .....	13.81	13.81	15.84
New York Market			
87 Octane Unleaded Gasoline .....	22.22	23.59	26.33
No. 2 Heating Oil .....	22.55	22.47	25.48
Residual Fuel Oil .....	13.75	13.50	15.75

<sup>1</sup>Source: Bloomberg Oil Buyers' Guide, published by Bloomberg Petroleum Publications (Copyright 1993)

See Tables 12 and 13.

During the week ending August 20, 1993, the world crude oil price rose 37 cents per barrel from the previous week. On the New York market, spot prices for 87 octane unleaded gasoline fell \$1.37 per barrel, while the spot price of No. 2 heating oil rose 8 cents per barrel. The New York distillate fuel oil price was 90 cents per barrel higher than the price in Rotterdam.

\*Note: Data may not add to total due to independent rounding.

## Highlights from the *Short-Term Energy Outlook*, Third Quarter 1993

### Excess Capacity and Inventories Climb, Leaving World Oil Prices Low

World oil prices are expected to average close to 1992 levels in 1993, as excess world production capacity climbs by over 1.5 million barrels per day this year. World oil stocks, in terms of days of forward supply from usable commercial inventories, are expected to be above 1992 levels at the end of June, indicating little support for near-term price recovery. Under mid-price assumptions, the average price of oil imported into the United States is expected to stay at about \$18 per barrel through the third quarter of 1993, rising to \$19 in the fourth quarter.

### Economic Growth Pushes Oil Demand and Imports Up

U.S. economy is expected to grow by 2.7 percent in 1993 and 3.5 percent in 1994. This growth would push overall consumption to new record levels. Petroleum demand each 17.5 million barrels per day in 1993 and 17.9 in total net imports of petroleum would climb nearly 13 in 1993 to 7.8 million barrels per day.

### Oxygenated Gasoline Season, Low-Sulfur Diesel Imports Lie Ahead

demand growth of about 1 percent per year is expected to 1994. Based on experience from last winter, supplies are in excellent shape to meet oxygenated gasoline this winter, even though oxygenate stocks are currently at year's levels at this time. New low-sulfur diesel imports will begin complicating the supply picture beginning in the winter and this is expected to add about 4 cents per gallon to diesel costs.

### U.S. Crude Oil Production Slips Below 7.0 Million Barrels per Day in 1993

Domestic crude oil production is expected to continue its long-term decline, dropping by 4.2 percent in 1993, or about 300,000 barrels per day, and by 2.9 percent in 1994, or about 200,000 barrels per day. In 1993, U.S. crude oil production is expected to slip below 7 million barrels per day, only 4 years after production passed under the 8-million-barrels-per-day mark.

### Reliance on Working Gas Storage and Canadian Imports Increase for Peak Gas Demand

Despite the nearly 50 percent decline in drilling since 1985, natural gas production has remained relatively steady due to technological advances in exploration and drilling. However, low drilling activity in the face of rising demand has narrowed the gap between production and production capacity particularly since 1991, leading to increasing reliance on working gas storage and Canadian imports. Net imports of gas are expected to rise by 14 percent in 1993 and 12 percent in 1994, to 2.1 and 2.4 trillion cubic feet, respectively. Working gas storage levels have risen rapidly since their low end of March levels, underpinning unseasonably high spot and futures prices. Stocks are expected to be back close to 1991 levels in 1993 and 1994.

### Electricity Demand Grows in All Consuming Sectors

Total demand for electricity is expected to increase by 2.9 percent in both 1993 and 1994. The effect of normal weather in 1993 is expected to support growth in total demand. The colder winter and spring this year relative to 1992 gives an added boost to residential electricity growth in 1993. Industrial electricity demand is expected to be boosted by improved growth in manufacturing production in both forecast years.

## World Oil Price Case Projections, U.S. Total, *Short-Term Energy Outlook*, Third Quarter 1993

	History					Projections					Year		
	1992		1993			1994					1992	1993	1994
	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr			
Crude Oil	19.42	18.27	17.31	17.92	18.00	(Nominal Dollars per Barrel) 19.00	18.00	18.00	19.00	20.00	18.20	18.07	18.77
Refined Petroleum	4,934	4,991	5,003	5,035	5,078	(Billion 1982 Dollars) 5,115	5,166	5,215	5,259	5,310	4,923	5,058	5,237
Gasoline	1.23	1.21	1.17	1.20	1.21	(Nominal Dollars per Gallon) 1.22	1.19	1.24	1.25	1.26	1.19	1.20	1.23
Distillate Fuel Oil	0.90	0.94	0.95	0.92	0.89	0.97	0.99	0.93	0.92	1.01	0.93	0.94	0.97
Other Petroleum Products <sup>1</sup>	7.03	7.09	6.98	6.84	6.83	(Million Barrels per Day) 6.83	6.82	6.67	6.59	6.60	7.17	6.87	6.67
Petroleum Products Supplied	7.46	7.28	7.09	7.52	7.64	7.45	7.24	7.60	7.73	7.54	7.27	7.43	7.53
Motor Gasoline	1.49	1.52	1.48	1.44	1.51	1.54	1.48	1.43	1.51	1.53	1.45	1.49	1.49
Jet Fuel	2.77	3.10	3.47	2.98	2.83	3.25	3.59	3.07	2.94	3.37	2.98	3.13	3.24
Distillate Fuel Oil	0.94	1.16	1.07	1.07	1.05	1.15	1.31	1.14	1.02	1.18	1.09	1.08	1.16
Residual Fuel Oil	4.33	4.43	4.16	4.10	4.53	4.49	4.38	4.30	4.60	4.59	4.24	4.32	4.47
Other Petroleum Products <sup>2</sup>	16.98	17.49	17.27	17.10	17.56	17.87	18.01	17.55	17.80	18.21	17.03	17.45	17.89
Total Products Supplied	7.45	7.03	7.18	7.90	8.21	7.96	7.84	8.55	8.73	8.48	6.94	7.81	8.40
Total Net Imports <sup>3</sup>													

<sup>1</sup> Volume - weighted average.

<sup>2</sup> Includes liquefied petroleum gases, petrochemical feedstocks, and all other products not noted here.

<sup>3</sup> Includes imports for the Strategic Petroleum Reserve.

Table 1. U.S. Petroleum Balance Sheet, 4 Weeks Ending 08/20/93

Petroleum Supply (thousand Barrels per Day)	Four Week Averages Ending		Percent Change	Cumulative Daily Averages 231 Days		Percent Change
	08/20/93	08/20/92		1993	1992	
<b>Crude Oil Supply</b>						
1) Domestic Production <sup>1</sup>	E 6,755	6,989	-3.3	E 6,865	7,237	-5.1
2) Net Imports (Including SPR) <sup>2</sup>	6,243	6,459	-3.3	6,403	5,897	8.6
3) Gross Imports (Excluding SPR)	6,351	6,554	-3.1	6,502	5,973	8.9
4) SPR Imports	0	12	--	19	6	--
5) Exports	E 108	107	0.9	E 117	81	44.4
6) SPR Stocks Withdrawn (+) or Added (-)	-29	-14	--	-39	-6	--
7) Other Stocks Withdrawn (+) or Added (-)	459	19	--	-112	-23	--
8) Product Supplied and Losses	E -10	-9	--	E -10	-14	--
9) Unaccounted-for Crude Oil <sup>3</sup>	684	151	--	475	269	--
<b>Crude Oil Input to Refineries</b>	<b>14,102</b>	<b>13,596</b>	<b>3.7</b>	<b>13,582</b>	<b>13,360</b>	<b>1.7</b>
<b>Other Supply</b>						
1) Natural Gas Liquids Production	E 1,830	1,653	10.7	E 1,863	1,688	10.4
2) Other Liquids New Supply	E 112	127	-11.8	E 163	104	56.7
3) Crude Oil Product Supplied	E 10	8	25.0	E 10	14	-28.6
4) Processing Gain	E 813	779	4.4	E 784	769	2.0
5) Net Product Imports <sup>4</sup>	1,083	1,037	4.4	962	927	3.8
6) Gross Product Imports <sup>4</sup>	1,819	1,765	3.1	1,742	1,778	-2.0
7) Product Exports <sup>4</sup>	E 737	728	1.2	E 780	852	-8.5
8) Product Stocks Withdrawn (+) or Added (-) <sup>5</sup>	-135	-202	--	-176	14	--
<b>Total Product Supplied for Domestic Use</b>	<b>17,814</b>	<b>16,998</b>	<b>4.8</b>	<b>17,187</b>	<b>16,876</b>	<b>1.8</b>
<b>Products Supplied</b>						
1) Finished Motor Gasoline <sup>6</sup>	7,784	7,463	4.3	7,450	7,247	2.8
2) Naphtha-Type Jet Fuel	122	149	-18.1	121	147	-17.7
3) Kerosene-Type Jet Fuel	1,550	1,387	11.8	1,364	1,276	6.9
4) Distillate Fuel Oil	3,056	2,707	12.9	3,137	2,954	6.2
5) Residual Fuel Oil	1,102	956	15.3	1,025	1,105	-7.2
6) Other Oils <sup>7</sup>	4,200	4,336	-3.1	4,092	4,148	-1.4
<b>Total Products Supplied</b>	<b>17,814</b>	<b>16,998</b>	<b>4.8</b>	<b>17,187</b>	<b>16,876</b>	<b>1.8</b>
<b>Total Net Imports</b>	<b>7,326</b>	<b>7,496</b>	<b>-2.3</b>	<b>7,365</b>	<b>6,824</b>	<b>7.9</b>
<b>Petroleum Stocks</b> (billion Barrels)				Percent Change from		
	08/20/93	08/13/93	08/20/92	Previous Week	Year Ago	
Crude Oil (Excluding SPR) <sup>8</sup>	343.8	348.5	329.9	-1.3	4.2	
Total Motor Gasoline	202.0	207.7	206.6	-2.7	-2.2	
Reformulated	0.0	0.0	0.0	0.0	--	
Oxygenated	7.0	7.4	0.0	-5.4	--	
Other Finished	158.9	164.2	0.0	-3.2	--	
Blending Components	36.1	36.1	34.7	0.0	4.0	
Naphtha-Type Jet Fuel	3.8	4.1	4.7	-7.3	-19.1	
Kerosene-Type Jet Fuel	39.8	42.3	41.1	-5.9	-3.2	
Distillate Fuel Oil	125.5	122.9	119.6	2.1	4.9	
0.05% Sulfur and under	41.7	33.9	0.0	23.0	--	
Greater than 0.05% Sulfur	83.8	89.0	0.0	-5.8	--	
Residual Fuel Oil	42.4	43.0	42.1	-1.4	0.7	
Finished Oils	104.4	104.0	99.4	0.4	5.0	
Other Oils <sup>9</sup>	E 214.1	E 212.7	207.1	0.7	3.4	
<b>Crude Oil Stocks (Excluding SPR)</b>	<b>1,075.8</b>	<b>1,085.3</b>	<b>1,050.5</b>	<b>-0.9</b>	<b>2.4</b>	
<b>Crude Oil in SPR</b>	<b>583.8</b>	<b>583.8</b>	<b>569.9</b>	<b>0.0</b>	<b>2.4</b>	
<b>Total Stocks (Including SPR)</b>	<b>1,659.6</b>	<b>1,669.1</b>	<b>1,620.4</b>	<b>-0.6</b>	<b>2.4</b>	

<sup>1</sup> Includes lease condensate.

<sup>2</sup> Net Imports = Gross Imports (line 3) + Strategic Petroleum Reserve (SPR) Imports (line 4) - Exports (line 5).

<sup>3</sup> Unaccounted-for Crude Oil is a balancing item. See Glossary for further explanation.

<sup>4</sup> Includes finished petroleum products, unfinished oils, gasoline blending components, and natural gas plant liquids.

<sup>5</sup> Includes an estimate of minor product stock change based on monthly data.

<sup>6</sup> Includes field production of ethanol.

<sup>7</sup> Includes crude oil product supplied, natural gas liquids, liquefied refinery gases (LRGs), other liquids, and all finished petroleum products except motor oil, jet fuels, and distillate and residual fuel oils.

<sup>8</sup> Includes domestic and Customs-cleared foreign crude oil in transit to refineries.

<sup>9</sup> Includes stocks of all other oils such as aviation gasoline, kerosene, natural gas liquids and LRGs, other hydrocarbons and oxygenates, aviation gasoline blending components, naphtha and other oils for petrochemical feedstock use, special naphthas, lube oils, waxes, coke, asphalt, road oil, and cellulosic oils.

the current 2 weeks, stocks of these minor products are estimated from monthly data. (See Glossary: Stock change (Refined Products)).

E=Estimate based on data published for the most recent month in the *Petroleum Supply Monthly*, except for exports and crude oil production. See Appendix explanation of estimates of exports and crude oil production.

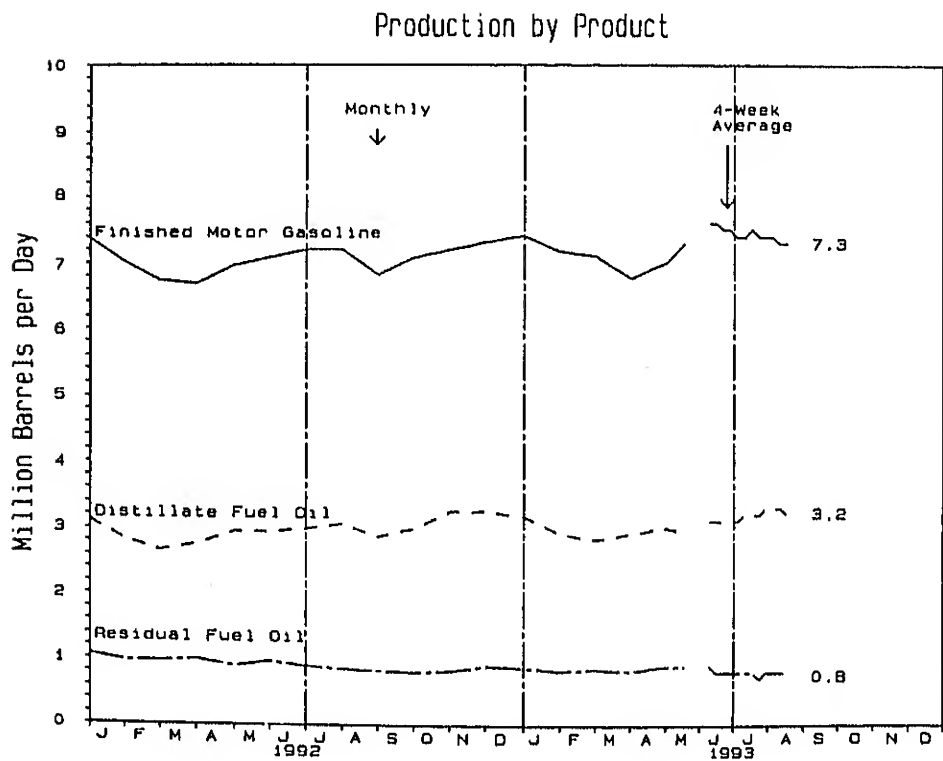
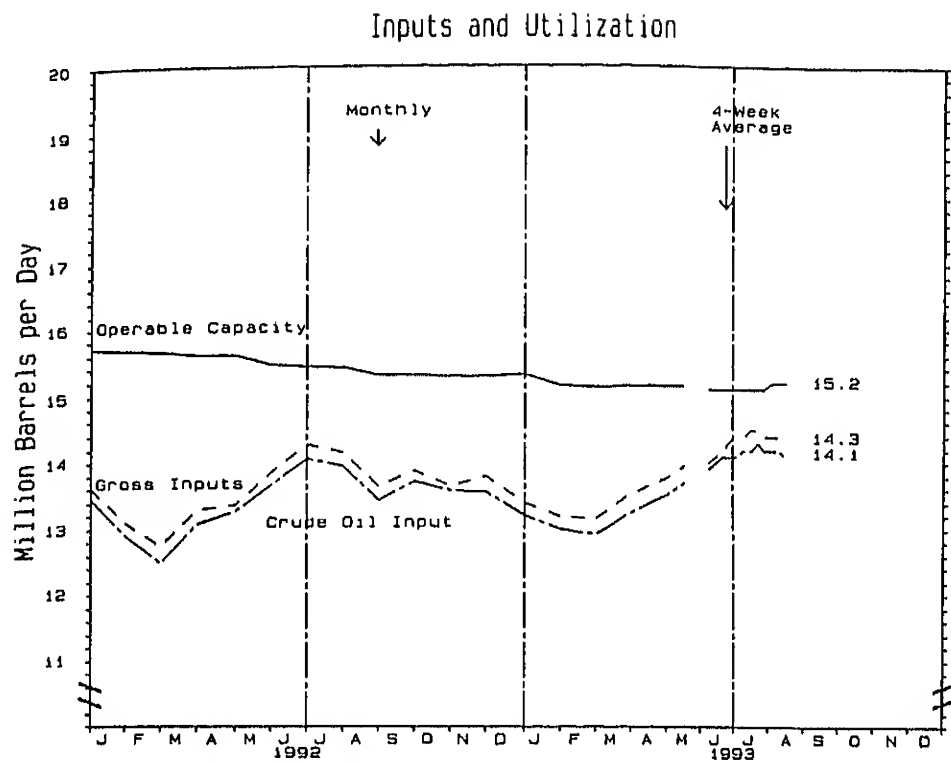
Note: Due to independent rounding, individual product detail may not add to total.

Sources: See page 28.





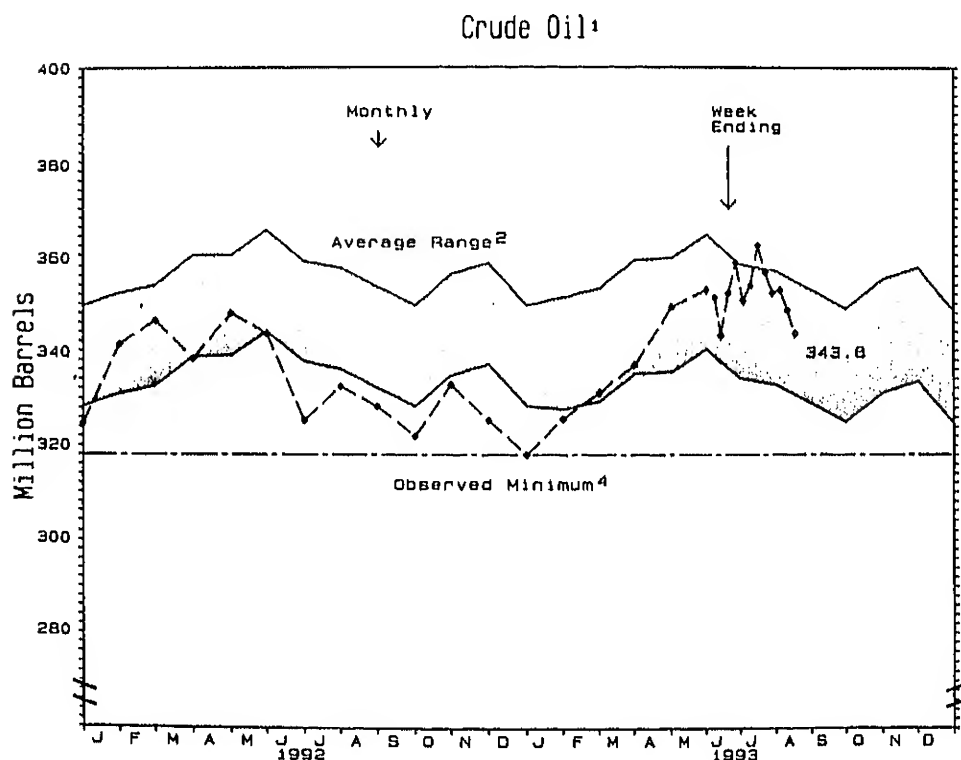
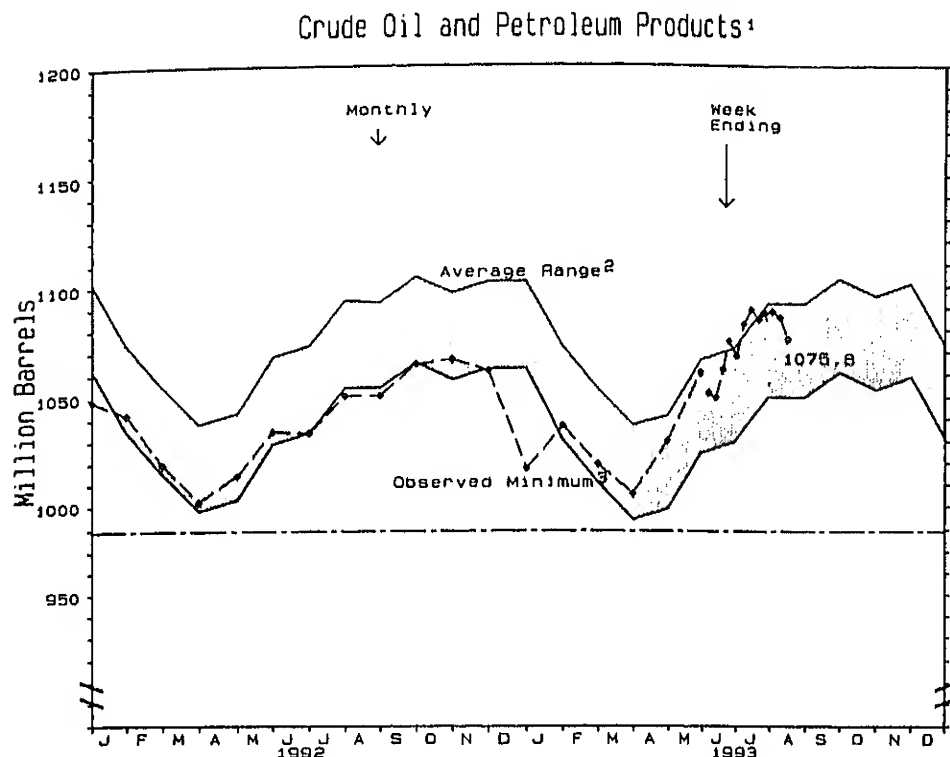
Figure 1. U.S. Petroleum Activity, January 1992 to Pres....



Source: See page 28.



Figure 2. Stocks of Crude Oil and Petroleum Products, U.S. Totals, January 1992 to Present



<sup>1</sup> Excludes stocks held in the Strategic Petroleum Reserve. Includes domestic and Customs-cleared foreign products and/or crude oil held at, or in transit to, refineries and bulk terminals, and stocks in pipelines.

<sup>2</sup> Average level and width of average range are based on 3 years of monthly data: January 1990 - December 1992. The seasonal pattern is based on 7 years of monthly data. See Appendix A for further explanation.

<sup>3</sup> The observed minimum for total stocks in the last 36-month period was 989.1 million barrels, occurring in March 1991. See Appendix for further explanation.

<sup>4</sup> The observed minimum for crude oil stocks in the last 36-month period was 318.1 million barrels, occurring in December 1992.

Source: See page 28.

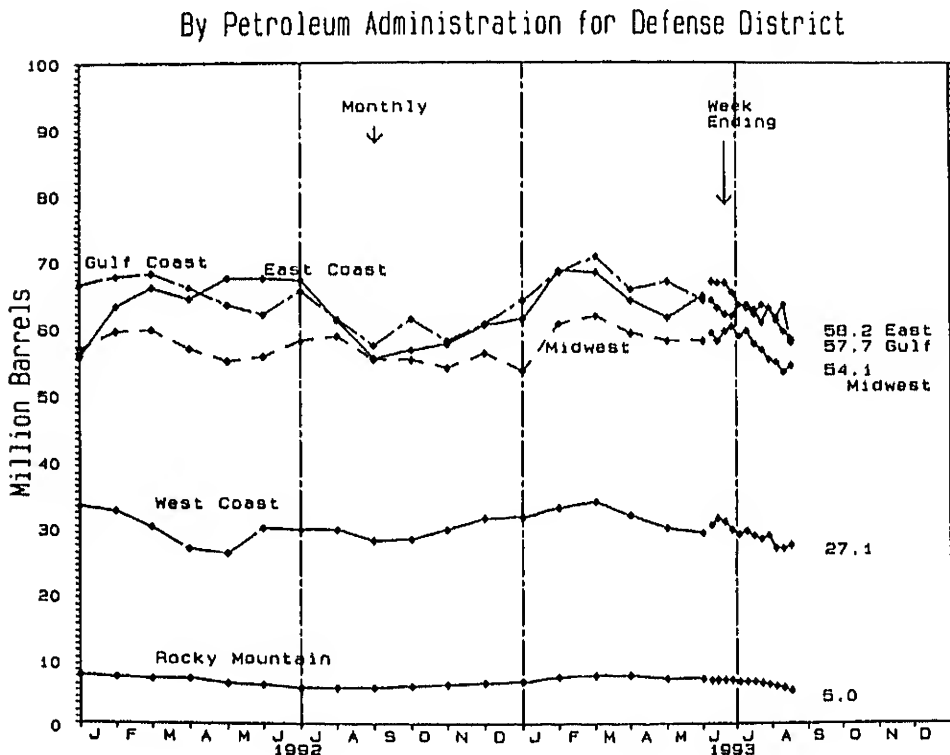
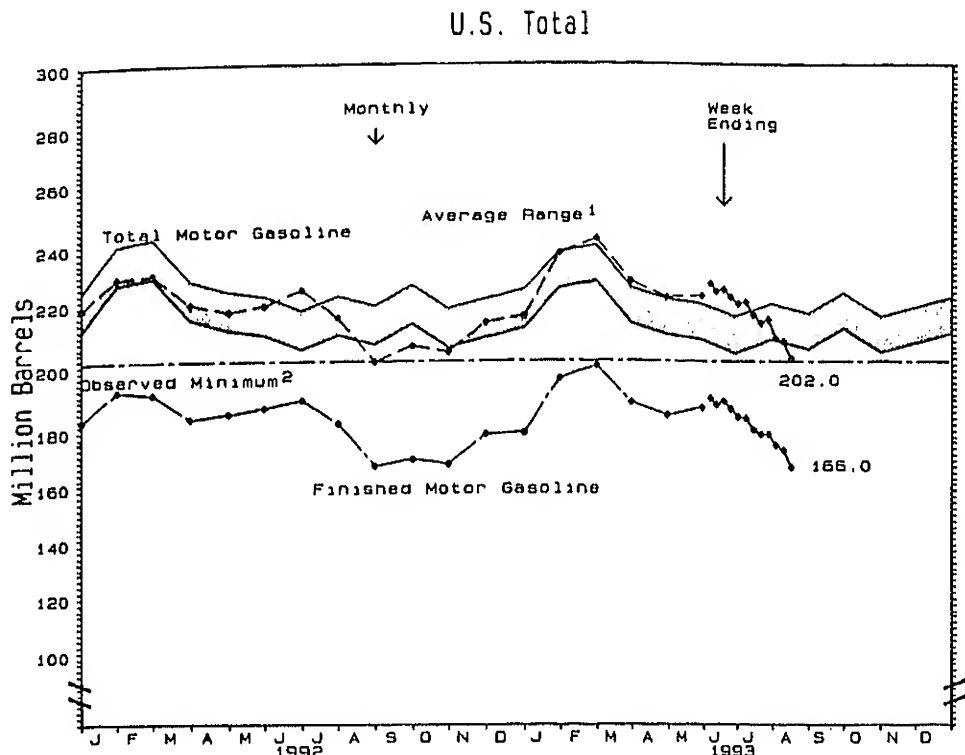
**Table 4. Stocks of Motor Gasoline by Petroleum Administration for Defense District (PADD), 1992 to Present**  
(Million Barrels)

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>1992</b>												
Total Motor Gasoline	229.3	230.1	220.4	217.7	219.8	224.8	215.5	201.0	208.3	204.4	213.9	216.3
East Coast (PADD I)	63.1	66.0	64.2	67.4	67.2	67.0	60.9	55.4	56.5	57.4	60.3	61.1
New England (PADD IX)	6.6	5.8	6.0	5.8	6.2	6.0	4.8	4.2	4.9	4.6	5.2	4.2
Central Atlantic (PADD IV)	31.9	37.1	34.9	37.0	33.7	34.4	30.0	26.7	27.7	28.3	29.6	30.8
Lower Atlantic (PADD IZ)	24.7	23.1	23.3	24.6	27.2	26.6	26.1	24.6	24.0	24.5	25.4	26.1
Midwest (PADD II)	59.3	59.4	56.8	54.9	55.5	57.8	58.7	55.1	55.2	53.9	56.0	53.5
Gulf Coast (PADD III)	67.5	68.0	65.9	63.4	61.8	65.3	61.1	57.2	61.1	57.8	60.4	63.9
Rocky Mountain (PADD IV)	7.1	6.7	6.9	6.0	5.8	5.3	5.4	5.5	5.6	5.9	6.2	6.5
West Coast (PADD V)	32.2	30.0	26.6	26.0	28.6	29.4	29.4	27.9	27.9	29.5	31.0	31.3
Finished Motor Gasoline	191.1	190.5	181.9	183.5	185.8	188.1	180.4	166.5	168.3	167.0	176.6	177.6
Leaded	4.8	4.6	3.9	3.8	4.0	3.8	3.9	3.5	3.7	3.7	3.9	3.8
Unleaded	186.3	185.9	177.9	179.7	181.8	184.2	176.5	163.0	164.6	163.4	172.7	173.8
Blending Components	38.2	39.6	38.5	34.2	34.1	36.8	35.1	34.5	38.0	37.4	37.3	38.7
<b>1993</b>												
Total Motor Gasoline	236.6	241.8	227.4	222.4	222.6							
East Coast (PADD I)	68.4	68.2	63.9	61.3	64.8							
New England (PADD IX)	6.0	6.1	5.9	5.5	6.0							
Central Atlantic (PADD IV)	36.3	37.5	36.0	34.1	33.5							
Lower Atlantic (PADD IZ)	26.0	24.7	22.1	21.7	25.3							
Midwest (PADD II)	60.4	61.7	59.1	57.9	58.0							
Gulf Coast (PADD III)	68.1	70.6	65.6	66.8	64.1							
Rocky Mountain (PADD IV)	7.1	7.3	7.4	6.8	6.9							
West Coast (PADD V)	32.6	33.7	31.5	29.6	28.9							
Finished Motor Gasoline	195.3	199.8	187.0	182.9	185.4							
Reformulated	0.0	0.0	0.0	0.0	0.0							
Oxygenated	32.3	23.0	17.5	11.3	10.2							
Other Finished	162.9	176.7	169.6	171.6	175.3							
Blending Components	41.3	41.8	40.4	39.5	37.2							
<b>Week Ending:</b>												
1993	06/04	06/11	06/18	06/25	07/02	07/09	07/16	07/23	07/30	08/06	08/13	08/20
Total Motor Gasoline	226.8	224.6	224.8	222.5	220.3	220.8	216.8	214.3	215.0	209.1	207.7	202.0
East Coast (PADD I)	66.9	66.5	66.5	65.2	63.2	63.2	62.7	60.6	62.8	60.9	59.4	58.2
New England (PADD IX)	8.7	6.4	6.2	6.0	5.3	5.8	5.5	4.9	5.3	5.8	4.7	4.7
Central Atlantic (PADD IV)	34.7	34.8	34.5	34.3	33.3	32.6	33.2	31.6	32.6	30.7	30.1	30.4
Lower Atlantic (PADD IZ)	25.5	25.1	25.8	24.9	24.7	24.8	24.0	24.2	24.9	24.4	24.5	23.1
Midwest (PADD II)	59.0	57.8	59.4	60.0	58.6	59.2	57.5	56.4	55.1	54.7	53.1	54.1
Gulf Coast (PADD III)	64.1	62.9	61.8	61.8	63.4	62.8	61.8	63.3	62.8	61.4	63.4	57.7
Rocky Mountain (PADD IV)	6.7	6.5	6.6	6.5	6.4	6.3	6.4	6.1	5.9	5.6	5.4	5.0
West Coast (PADD V)	30.1	31.0	30.6	29.3	28.8	29.2	28.4	27.9	28.4	26.5	26.5	27.1
Finished Motor Gasoline	188.5	186.7	187.6	185.1	182.4	182.1	178.5	176.8	176.8	173.4	171.6	168.0
Reformulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oxygenated	6.2	6.3	7.3	6.8	5.9	6.9	6.3	6.1	6.3	6.7	7.4	7.0
Other Finished	182.3	180.4	180.3	178.3	176.5	175.2	172.3	170.7	170.5	166.6	164.2	158.9
Blending Components	38.2	38.0	37.2	37.4	37.9	38.7	38.3	37.5	38.2	35.7	36.1	36.1

Note: PADD and sub-PADD data may not add to total due to Independent rounding.

Source: See page 28.

Figure 3. Stocks of Motor Gasoline by Petroleum Administration for Defense District, January 1992 to Present



<sup>1</sup> Average level and width of average range are based on 3 years of monthly data: January 1990 - December 1992. The seasonal pattern is based on 7 years monthly data. See Appendix A for further explanation.

<sup>2</sup> The observed minimum for total motor gasoline stocks in the last 36-month period was 201.0 million barrels, occurring in August 1992.

Source: See page 28.

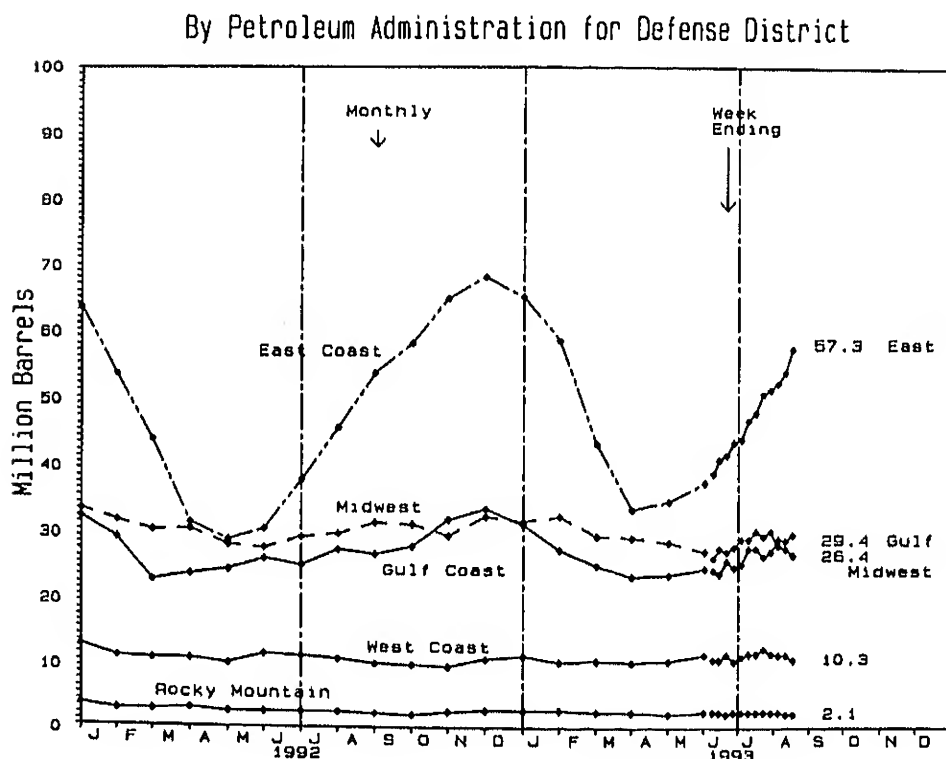
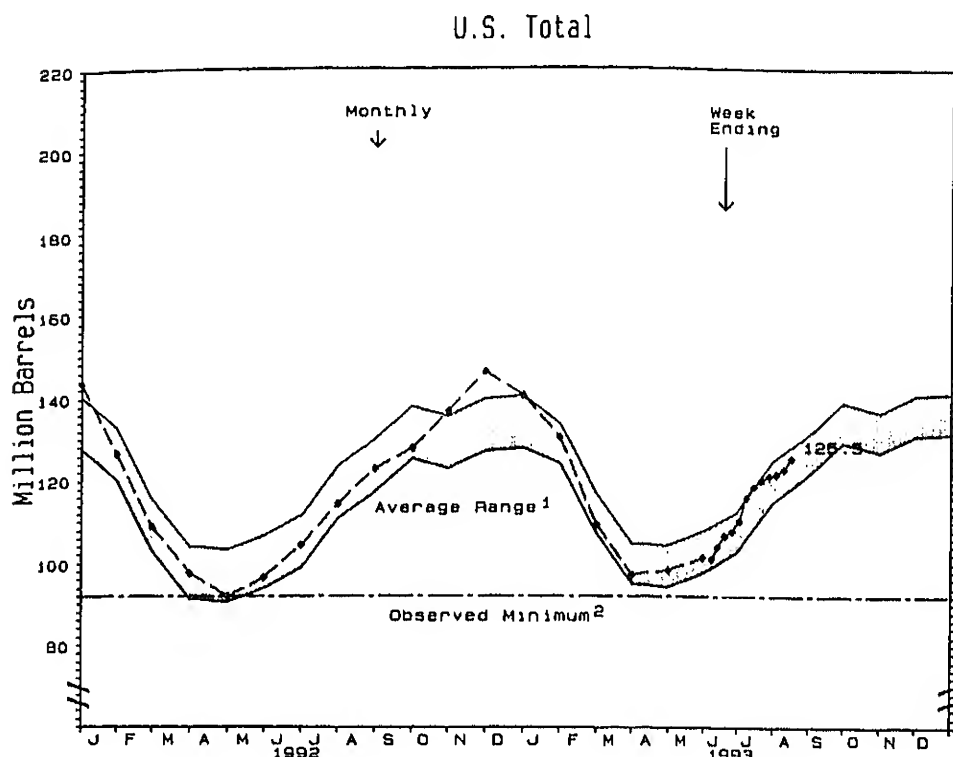
Table 5. Stocks of Distillate Fuel Oil by Petroleum Administration for Defense District (PADD), 1992 to Present  
(Million Barrels)

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>1992</b>												
Total U.S.	126.7	108.8	97.7	92.1	96.4	104.5	114.6	122.8	127.8	136.8	146.3	149.6
East Coast (PADD I)	53.4	43.5	31.0	28.5	30.1	37.5	45.4	53.6	58.1	64.8	68.2	65.1
New England (PADD IX)	7.4	6.7	4.4	3.3	4.7	6.8	9.5	11.0	11.2	12.1	11.6	9.9
Central Atlantic (PADD IY)	34.6	25.8	17.0	15.8	14.8	18.0	24.9	30.9	35.7	40.3	42.8	41.0
Lower Atlantic (PADD IZ)	11.3	11.0	9.5	9.4	10.6	12.7	11.1	11.7	11.3	12.4	13.7	14.1
Midwest (PADD II)	31.2	29.8	30.1	27.7	27.4	29.0	29.3	31.1	30.8	29.1	31.9	31.3
Gulf Coast (PADD III)	28.8	22.5	23.4	24.0	25.6	24.7	27.1	26.4	27.5	31.5	33.2	33.8
Rocky Mountain (PADD IV)	2.7	2.5	2.8	2.3	2.2	2.4	2.5	2.1	2.0	2.3	2.7	2.5
West Coast (PADD V)	10.7	10.4	10.4	9.6	11.1	10.8	10.4	9.6	9.5	9.1	10.3	10.6
<b>1993</b>												
Total U.S.	130.2	109.4	97.5	98.3	101.6							
0.05% Sulfur and under	22.1	15.6	12.4	12.8	14.1							
Greater than 0.05% Sulfur	108.1	93.8	85.1	85.6	87.4							
East Coast (PADD I)	58.6	43.2	33.1	34.5	37.1							
0.05% Sulfur and under	10.4	7.0	5.0	5.7	6.8							
Greater than 0.05% Sulfur	48.2	36.1	28.1	28.8	30.3							
New England (PADD IX)	10.0	8.0	5.8	5.3	5.5							
Central Atlantic (PADD IY)	34.8	24.0	16.9	19.6	21.0							
Lower Atlantic (PADD IZ)	13.8	11.1	10.5	9.6	10.6							
Midwest (PADD II)	32.1	29.1	29.0	28.3	26.9							
0.05% Sulfur and under	3.7	2.0	1.6	1.7	1.7							
Greater than 0.05% Sulfur	28.5	27.1	27.4	26.7	25.2							
Gulf Coast (PADD III)	27.1	24.6	23.1	23.4	24.1							
0.05% Sulfur and under	5.7	3.7	2.8	2.9	2.6							
Greater than 0.05% Sulfur	21.4	21.0	20.3	20.5	21.6							
Rocky Mountain (PADD IV)	2.5	2.4	2.4	2.0	2.4							
0.05% Sulfur and under	0.3	0.4	0.5	0.3	0.4							
Greater than 0.05% Sulfur	2.2	2.0	1.9	1.8	2.0							
West Coast (PADD V)	9.9	10.1	9.9	10.2	11.0							
0.05% Sulfur and under	2.1	2.6	2.5	2.3	2.7							
Greater than 0.05% Sulfur	7.8	7.6	7.4	7.8	8.4							
<b>Week Ending:</b>												
	06/04	06/11	06/18	06/25	07/02	07/09	07/16	07/23	07/30	08/06	08/13	08/20
<b>1993</b>												
Total U.S.	101.2	104.1	106.8	107.7	110.5	116.1	118.6	120.3	121.3	121.8	122.9	125.5
0.05% Sulfur and under	14.5	16.0	14.7	16.7	16.3	18.5	20.1	22.1	24.3	30.4	33.9	41.7
Greater than 0.05% Sulfur	86.7	88.1	92.1	91.0	94.2	97.6	98.5	98.2	97.0	91.4	89.0	83.8
East Coast (PADD I)	38.6	40.8	41.4	43.3	43.8	46.5	47.8	50.6	51.2	52.2	54.0	57.3
0.05% Sulfur and under	7.4	8.9	7.6	9.4	6.4	8.7	8.9	9.5	10.4	12.2	14.3	19.0
Greater than 0.05% Sulfur	31.2	31.9	33.8	33.9	37.3	37.8	38.8	41.2	40.8	40.0	39.7	38.4
New England (PADD IX)	6.2	6.8	7.3	8.4	7.9	9.3	9.3	10.0	8.9	9.7	9.7	10.7
Central Atlantic (PADD IY)	22.3	22.9	23.1	24.3	24.9	26.3	27.0	28.7	30.7	31.8	34.9	36.3
Lower Atlantic (PADD IZ)	10.0	11.1	11.0	10.6	11.0	10.9	11.5	12.0	11.6	10.8	9.4	10.3
Midwest (PADD II)	26.0	27.3	26.9	27.6	28.6	28.6	29.8	29.1	29.8	27.7	27.4	26.4
0.05% Sulfur and under	2.5	2.7	2.6	2.8	3.3	3.2	3.4	3.0	3.9	5.1	6.5	7.2
Greater than 0.05% Sulfur	23.5	24.6	24.3	24.8	25.3	25.4	26.4	26.1	25.9	22.6	20.9	19.2
Gulf Coast (PADD III)	24.0	23.5	25.4	24.4	25.0	27.2	27.2	26.1	26.8	28.6	28.4	29.4
0.05% Sulfur and under	1.8	1.4	1.6	1.9	3.7	2.8	3.9	4.3	5.3	8.0	7.6	9.8
Greater than 0.05% Sulfur	22.2	22.1	23.8	22.5	21.3	24.4	23.3	21.8	21.4	20.6	20.8	19.6
Rocky Mountain (PADD IV)	2.4	2.3	2.1	2.3	2.3	2.4	2.4	2.4	2.4	2.3	2.1	2.1
0.05% Sulfur and under	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.4	0.4	0.4	0.4	0.5
Greater than 0.05% Sulfur	2.2	2.0	1.9	2.1	2.1	2.2	2.2	2.0	2.0	1.9	1.7	1.7
West Coast (PADD V)	10.3	10.3	11.0	10.2	10.9	11.3	11.4	12.0	11.2	11.0	11.0	10.3
0.05% Sulfur and under	2.6	2.8	2.7	2.4	2.8	3.5	3.7	4.9	4.2	4.7	5.2	5.2
Greater than 0.05% Sulfur	7.7	7.6	8.2	7.7	8.1	7.8	7.7	7.1	6.9	6.2	5.8	5.0

Note: PADD and sub-PADD data may not add to total due to independent rounding.

Source: See page 28.

Figure 4. Stocks of Distillate Fuel Oil by Petroleum Administration for Defense District, January 1992 to Present



<sup>1</sup> Average level and width of average range are based on 3 years of monthly data: January 1990 - December 1992. The seasonal pattern is based on 7 years of monthly data. See Appendix A for further explanation.

<sup>2</sup> The observed minimum for distillate fuel oil stocks in the last 36-month period was 92.1 million barrels, occurring in April 1992.

Source: See page 28.

**Table 6. Stocks of Residual Fuel Oil by Petroleum Administration for Defense District (PADD), 1992 to Present**  
(Million Barrels)

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>1992</b>												
Total U.S.	45.4	43.9	41.5	39.1	41.2	40.9	39.7	43.6	47.3	45.0	46.5	42.6
East Coast (PADD I)	18.4	17.1	14.4	14.3	15.1	15.2	14.7	16.1	18.5	18.4	19.7	17.1
New England (PADD IX)	1.9	2.0	1.7	1.5	1.4	1.5	1.5	1.5	1.8	2.3	2.5	1.6
Central Atlantic (PADD IY)	13.5	12.4	10.1	10.2	10.8	10.7	10.7	11.9	13.6	13.9	14.2	12.8
Lower Atlantic (PADD IZ)	3.0	2.7	2.6	2.6	2.8	3.0	2.4	2.7	3.0	2.3	3.1	2.7
Midwest (PADD II)	3.4	3.7	3.6	3.3	3.3	2.7	2.6	2.3	2.2	2.3	2.5	3.0
Gulf Coast (PADD III)	14.4	14.0	14.9	14.0	13.7	15.5	14.6	15.9	17.4	15.7	16.1	15.2
Rocky Mountain (PADD IV)	0.6	0.6	0.7	0.8	0.8	0.7	0.7	0.5	0.5	0.4	0.4	0.4
West Coast (PADD V)	8.7	8.4	7.8	6.8	8.4	6.8	7.3	8.8	8.7	8.2	7.9	7.0
<b>1993</b>												
Total U.S.	44.2	42.1	40.7	41.4	43.0							
East Coast (PADD I)	18.9	15.7	13.3	12.1	15.6							
New England (PADD IX)	2.4	1.8	1.3	1.2	1.6							
Central Atlantic (PADD IY)	14.3	11.7	9.5	8.4	11.2							
Lower Atlantic (PADD IZ)	2.2	2.3	2.5	2.4	2.8							
Midwest (PADD II)	2.9	2.8	2.8	2.8	2.8							
Gulf Coast (PADD III)	14.6	15.5	15.6	18.2	17.0							
Rocky Mountain (PADD IV)	0.3	0.3	0.4	0.3	0.3							
West Coast (PADD V)	7.6	7.7	8.6	8.0	7.3							
<b>Week Ending:</b>												
<b>1993</b>	<b>06/04</b>	<b>06/11</b>	<b>06/18</b>	<b>06/25</b>	<b>07/02</b>	<b>07/09</b>	<b>07/16</b>	<b>07/23</b>	<b>07/30</b>	<b>08/06</b>	<b>08/13</b>	<b>08/20</b>
Total U.S.	44.6	46.2	45.0	45.8	45.6	46.1	45.2	43.9	41.5	43.2	43.0	42.4
East Coast (PADD I)	16.6	16.9	17.2	17.2	16.6	17.0	16.4	16.0	14.3	15.6	16.2	16.2
New England (PADD IX)	1.6	1.4	1.7	1.5	1.8	1.9	1.9	1.9	1.6	1.8	1.6	1.4
Central Atlantic (PADD IY)	12.4	12.7	13.1	13.4	12.5	12.7	11.7	11.8	10.5	11.5	12.2	12.4
Lower Atlantic (PADD IZ)	2.6	2.7	2.4	2.3	2.3	2.5	2.8	2.3	2.2	2.4	2.4	2.3
Midwest (PADD II)	3.9	4.0	3.8	4.0	3.8	4.1	4.0	4.2	3.7	3.8	3.5	3.3
Gulf Coast (PADD III)	17.1	17.5	16.6	16.9	16.8	17.8	17.3	16.5	15.5	15.6	15.2	14.9
Rocky Mountain (PADD IV)	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3
West Coast (PADD V)	6.7	7.4	7.0	7.4	8.0	6.8	7.1	6.9	7.6	7.7	7.8	7.7

Note: PADD and sub-PADD data may not add to total due to independent rounding.  
Source: See page 28.



Figure 5. Stocks of Residual Fuel Oil by Petroleum Administration for Defense District, January 1992 to Present

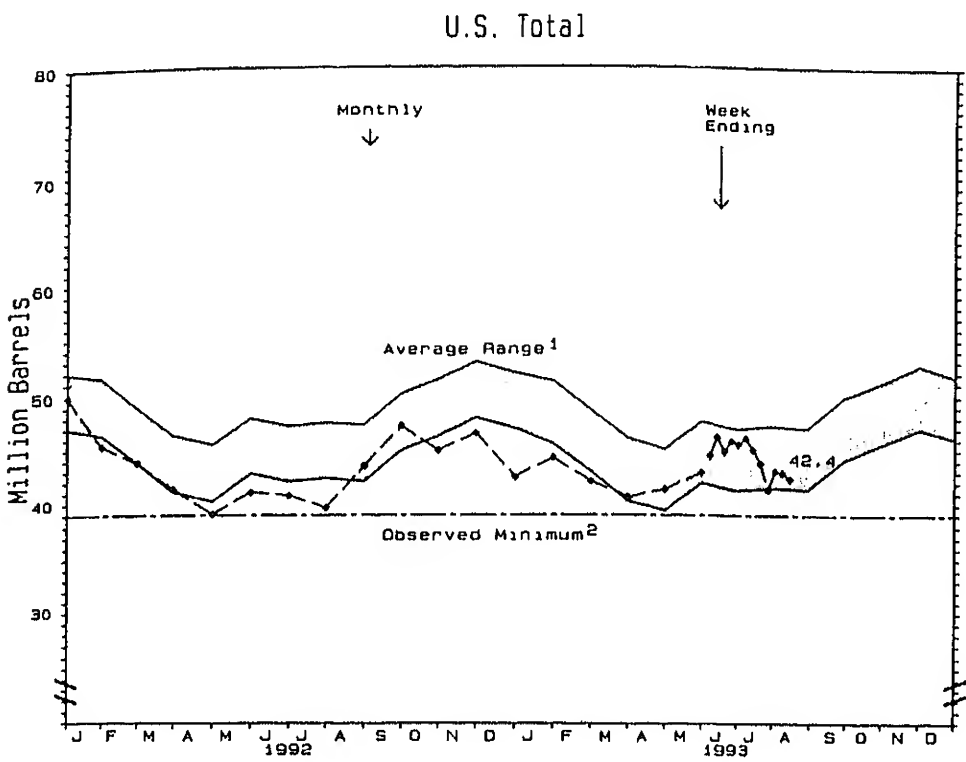
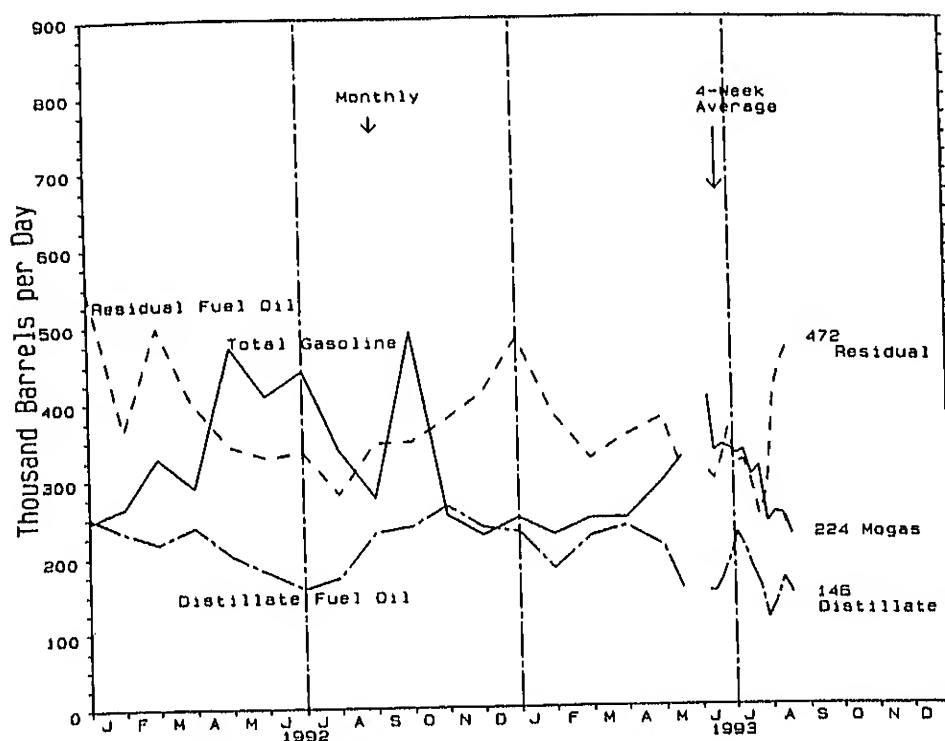


Figure 6. U.S. Imports of Petroleum Products by Product, January 1992 to Present



U.S. Imports of Petroleum Products by Product, 1992 to Present  
(Thousand Barrels per Day)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Residual Fuel Oil	264	328	289	471	409	441	338	276	491	252	225
Gasoline	0	0	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	246	275	247	428	392	424	303	240	418	193	170
Other Petroleum Products	18	53	42	44	18	17	35	37	73	58	55
Total	39	56	56	74	93	86	81	111	93	105	90
Residual Fuel Oil	232	217	238	202	179	157	172	229	237	263	236
Gasoline	364	498	397	342	328	334	280	347	349	376	411
Distillate Fuel Oil	858	649	768	876	753	756	811	840	789	814	789
Other Petroleum Products	226	246	245	294	324						
Gasoline	0	0	0	0	0						
Distillate Fuel Oil	0	0	0	0	0						
Other Petroleum Products	204	216	198	253	308						
Gasoline	21	31	47	41	16						
Distillate Fuel Oil	89	110	102	88	75						
Other Petroleum Products	182	224	235	209	153						
Gasoline	41	58	64	89	91						
Distillate Fuel Oil	141	166	171	120	62						
Other Petroleum Products	383	325	352	377	308						
Gasoline	793	870	894	819	940						

Period Ending:	06/04	06/11	06/18	06/25	07/02	07/09	07/16	07/23	07/30	08/06	08/13
Residual Fuel Oil	403	333	339	337	328	333	301	313	239	252	249
Gasoline	0	0	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	13	13	13	2	2	2	2	0	0	0	0
Other Petroleum Products	44	273	295	294	294	301	266	274	212	217	223
Gasoline	48	31	41	32	30	33	39	27	35	26	26
Distillate Fuel Oil	68	65	76	78	67	72	86	84	94	81	81
Other Petroleum Products	168	188	192	225	207	179	158	115	135	165	165
Gasoline	107	85	90	69	50	66	54	55	55	61	61
Distillate Fuel Oil	60	107	135	138	130	92	92	62	80	105	105
Other Petroleum Products	322	360	317	320	292	248	248	282	415	448	448
Gasoline	832	680	679	781	778	812	859	847	922	922	922

...ed petroleum gases, and other oils.  
(rounding.

Figure 7. U.S. Imports of Crude Oil and Petroleum Products, January 1992 to Present

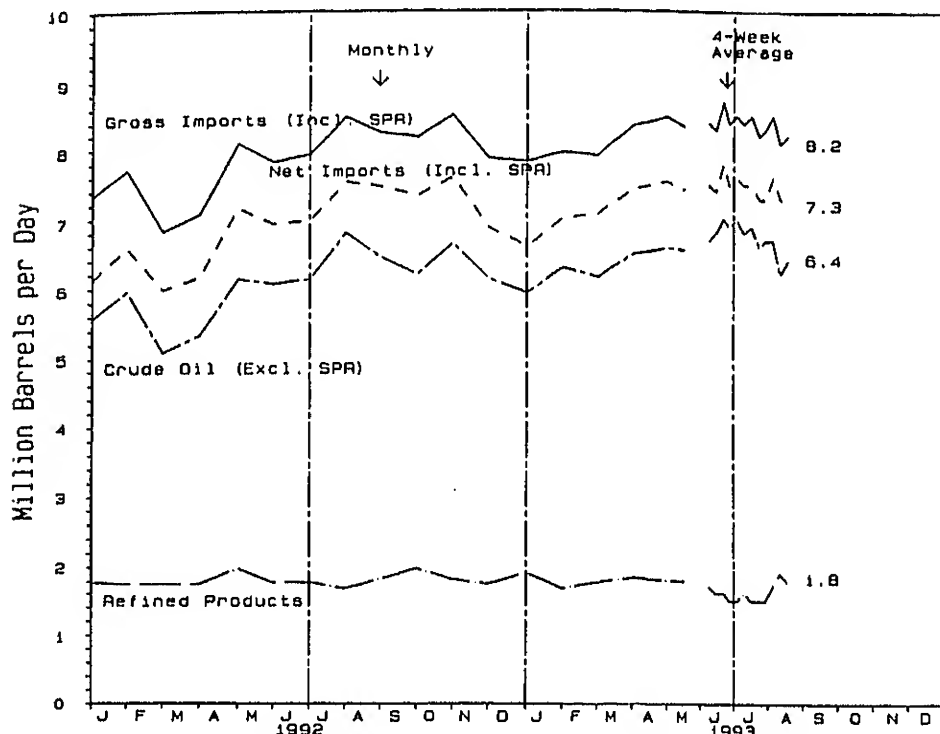


Table 8. U.S. Imports of Crude Oil and Petroleum Products, 1992 to Present  
(Million Barrels per Day)

Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>1992</b>												
Crude Oil (Excl. SPR)	6.0	5.1	5.0	6.1	6.1	6.1	6.8	6.4	6.2	6.6	6.1	5.9
SPR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refined Products	1.8	1.7	1.7	2.0	1.8	1.8	1.7	1.8	2.0	1.8	1.8	1.9
Gross Imports (Incl. SPR)	7.7	6.8	7.1	8.1	7.8	7.9	8.5	8.3	8.2	8.5	7.9	7.8
Total Exports <sup>1</sup>	1.1	0.9	0.9	0.9	0.9	1.0	0.9	0.8	0.8	0.9	1.0	1.2
Net Imports (Incl. SPR)	6.6	6.0	6.2	7.2	6.9	7.0	7.6	7.5	7.3	7.6	6.9	6.6
<b>1993</b>												
Crude Oil (Excl. SPR)	6.3	6.2	6.5	6.6	6.5							
SPR	0.0	0.0	0.0	0.1	0.0							
Refined Products	1.7	1.8	1.8	1.8	1.8							
Gross Imports (Incl. SPR)	8.0	7.9	8.3	8.5	8.3							
Total Exports <sup>1</sup>	1.0	0.9	0.9	0.9	0.9							
Net Imports (Incl. SPR)	7.0	7.1	7.4	7.5	7.4							
<b>Average for Four-Week Period Ending:</b>												
<b>1993</b>												
	06/04	06/11	06/18	06/25	07/02	07/09	07/16	07/23	07/30	08/06	08/13	08/20
Crude Oil (Excl. SPR)	6.7	6.8	7.0	6.9	7.0	6.8	6.8	6.6	6.7	6.7	6.2	6.4
SPR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refined Products	1.7	1.6	1.6	1.5	1.5	1.6	1.5	1.5	1.5	1.7	1.9	1.8
Gross Imports (Incl. SPR)	8.4	8.3	8.7	8.4	8.5	8.4	8.5	8.2	8.3	8.5	8.1	8.2
Total Exports <sup>1</sup>	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8
Net Imports (Incl. SPR)	7.5	7.4	7.8	7.5	7.6	7.5	7.5	7.3	7.3	7.6	7.3	7.3

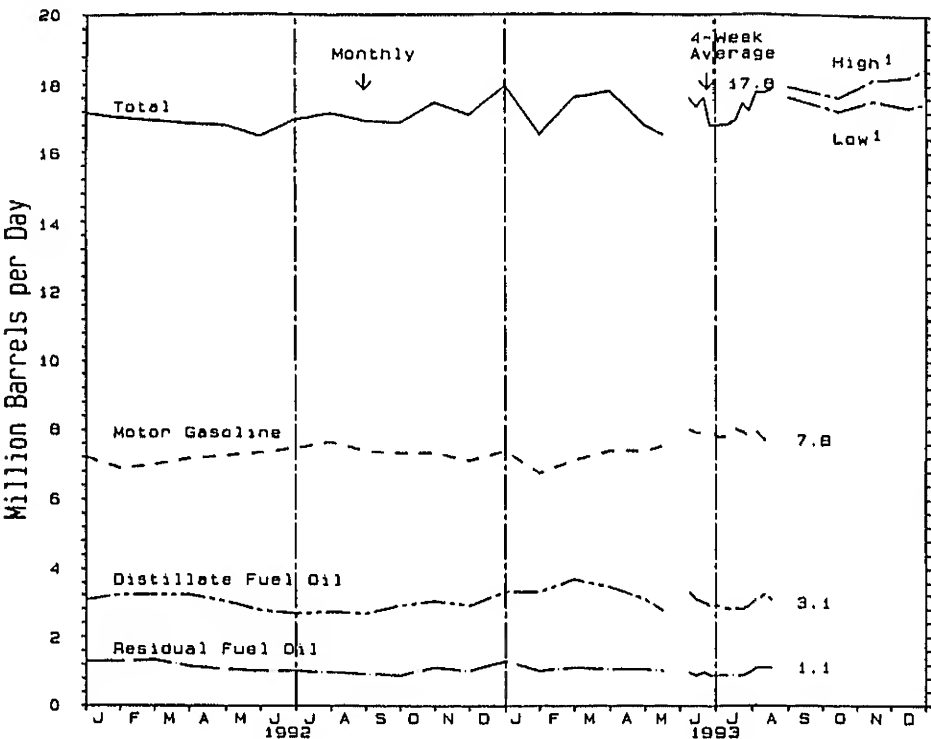
<sup>1</sup> Includes exports of crude oil and refined petroleum products. Crude oil exports are restricted to (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet, (2) certain domestically produced crude oil destined for Canada, and (3) shipments to U.S. territories.

E= Estimate based on data published for the most recent month in the *Petroleum Supply Monthly*.

Note: Data may not add to total due to independent rounding.

Source: See page 28.

Figure 8. U.S. Petroleum Products Supplied, January 1992 to Present



See Appendix for explanation of assumptions used to derive values.

Petroleum Products Supplied, 1992 to Present  
(in Barrels per Day)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total	17.0	16.9	16.8	16.8	16.5	17.0	17.1	16.9	16.9	17.4	17.1	17.9
Motor Gasoline	6.9	7.0	7.1	7.2	7.3	7.5	7.6	7.4	7.3	7.3	7.1	7.4
Distillate Fuel Oil	3.2	3.2	3.2	3.0	2.8	2.7	2.7	2.7	2.9	3.1	2.9	3.3
Residual Fuel Oil	1.3	1.3	1.2	1.1	1.0	1.0	1.0	0.9	0.9	1.1	1.0	1.3
4-Week Average	4.2	4.0	4.0	4.0	4.0	4.4	4.4	4.3	4.3	4.5	4.5	4.4

Table 10. U.S. Refiner Acquisition Cost of Crude Oil, 1990 to Present  
(Dollars per Barrel)

Year/Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1990												
Domestic	20.75	20.75	19.32	17.37	16.45	15.06	15.86	22.96	30.14	33.32	30.75	26.46
Imported	20.51	19.78	18.94	16.66	16.07	15.15	16.54	24.26	29.88	32.88	30.19	25.56
Composite	20.64	20.31	19.14	17.05	16.27	15.11	16.19	23.55	30.03	33.14	30.52	26.09
1991												
Domestic	23.25	19.55	18.12	18.56	18.98	18.16	18.91	19.10	19.31	20.39	20.01	17.84
Imported	22.30	18.30	17.58	18.32	18.36	17.78	18.14	18.71	19.00	19.86	19.35	17.17
Composite	22.85	19.03	17.89	18.46	18.70	17.98	18.57	18.92	19.17	20.18	19.72	17.56
1992												
Domestic	16.75	16.49	16.81	17.88	18.86	20.13	20.42	19.84	19.88	19.64	18.90	17.85
Imported	16.10	16.00	16.36	17.37	18.79	19.83	19.74	19.25	19.26	19.34	18.40	16.94
Composite	16.47	16.28	16.62	17.66	18.83	19.99	20.10	19.56	19.59	19.49	18.66	17.43
1993												
Domestic	17.40	17.84	18.31	18.49	P 18.43							
Imported	16.78	17.41	17.82	18.35	P 17.89							
Composite	17.10	17.64	18.08	18.42	P 18.16							

P=Preliminary.

Table 11. U.S. Average Retail Selling Prices of Motor Gasoline and Residential Heating Oil, 1990 to Present  
(Cents per Gallon, Including Taxes)

Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1990												
Motor Gasoline												
Leaded Regular <sup>2</sup>	100.6	101.1	99.9	102.7	104.4	107.7	108.9	119.8	129.7	135.4	135.1	133.5
Unleaded Premium	123.0	122.7	121.8	123.3	124.8	127.1	127.2	136.9	146.7	155.4	155.9	153.7
Unleaded Regular	104.2	103.7	102.3	104.4	106.1	108.8	108.4	119.0	129.4	137.8	137.7	135.4
Hi-Types	109.0	108.6	107.6	109.6	111.4	114.0	113.9	124.6	134.7	143.1	143.2	141.0
Residential Heating Oil <sup>1</sup>	114.0	96.5	94.9	93.2	90.7	86.4	83.7	98.8	114.2	125.8	124.1	119.7
1991												
Motor Gasoline												
Leaded Regular <sup>2</sup>	124.6	113.7	104.7	106.2	NA	NA	NA	NA	NA	NA	NA	NA
Unleaded Premium	143.1	132.1	126.4	128.1	133.1	133.8	131.3	131.8	132.4	130.7	131.8	130.9
Unleaded Regular	124.7	114.3	108.2	110.4	115.6	116.0	112.7	114.0	114.3	112.2	113.4	112.3
Hi-Types	130.4	119.8	113.8	115.9	120.9	121.4	118.5	119.6	119.9	118.0	119.3	118.2
Residential Heating Oil <sup>1</sup>	116.8	110.3	102.6	96.9	92.5	89.3	86.6	87.0	89.6	94.0	97.9	95.9
1992												
Motor Gasoline												
Leaded Regular <sup>2</sup>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Unleaded Premium	126.7	124.8	125.0	126.8	131.7	135.9	136.3	134.8	134.6	134.5	135.1	133.0
Unleaded Regular	107.3	105.4	105.8	107.9	113.6	117.9	117.5	115.8	115.8	115.4	115.9	113.6
Hi-Types	113.5	111.7	112.2	114.3	119.7	123.9	123.8	122.1	122.2	121.9	122.3	120.1
Residential Heating Oil <sup>1</sup>	94.1	94.1	93.0	92.5	92.3	92.2	90.4	88.6	90.1	93.8	94.9	94.6
1993												
Motor Gasoline												
Leaded Regular <sup>2</sup>	NA	NA	NA	NA	NA	NA						
Unleaded Premium	131.3	130.1	129.4	130.4	131.9	132.1						
Unleaded Regular	111.7	110.8	109.8	111.2	112.9	113.0						
Hi-Types	118.2	117.2	116.3	117.5	119.3	119.4						
Residential Heating Oil <sup>1</sup>	94.3	94.6	95.4	92.5	P 90.9	NA						

<sup>1</sup> Residential heating oil prices do not include taxes.

<sup>2</sup> The leaded regular motor gasoline price is no longer available from the Bureau of Labor Statistics (BLS). A mid-grade unleaded motor gasoline price will be used when the BLS makes them available.

NA=Not Available.

P=Preliminary.

Source: See page 28.

**Table 12. World Crude Oil Prices<sup>1</sup>**  
(Dollars per Barrel)

Country	Type of Crude/API Gravity <sup>2</sup>	In Effect:							
		20 Aug 93	13 Aug 93	1 Jan 93	1 Jan 92	1 Jan 91	1 Jan 90	1 Jan 89	1 Jan 88
OPEC									
Saudi Arabia	Arabian Light 34°	15.60	14.95	16.80	15.90	24.00	18.40	13.15	12.70
Saudi Arabia	Arabian Medium 31°	14.00	13.35	15.40	14.25	22.00	17.55	12.30	12.10
Saudi Arabia	Arabian Heavy 27°	12.80	12.15	14.40	14.45	20.00	17.15	11.90	12.10
Abu Dhabi	Murban 39°	16.44	15.99	18.15	16.80	24.65	19.05	13.70	13.10
Dubai	Fateh 32°	15.15	14.30	16.15	14.65	23.10	17.65	13.00	12.10
Qatar	Dukhan 40°	16.15	15.70	17.35	16.05	24.40	18.30	13.45	13.10
Iran	Iranian Light 34°	15.35	14.90	16.70	15.50	23.65	18.20	12.75	13.10
Iran	Iranian Heavy 31°	14.10	13.25	15.40	13.80	22.90	17.55	12.45	12.10
Iraq	Kirkuk Blend 36°	NA	NA	NA	NA	NA	19.45	14.40	13.10
Kuwait	Kuwait Blend 31°	14.00	13.35	15.30	NA	NA	17.35	12.30	12.10
Neutral Zone	Khafji 28°	12.00	11.95	13.80	14.45	20.00	17.05	11.90	12.10
Algeria	Saharan Blend 44°	17.42	16.95	18.60	18.80	28.85	21.15	16.10	14.10
Nigeria	Bonny Light 37°	17.25	16.80	18.50	18.20	27.80	21.20	15.05	15.10
Nigeria	Forcados 31°	17.30	16.80	17.95	18.10	27.30	21.35	15.95	13.10
Libya	Es Sider 37°	16.20	15.70	17.55	17.20	26.90	20.40	15.40	13.10
Indonesia	Minas 34°	17.50	17.50	19.10	18.65	26.50	18.55	15.50	13.10
Venezuela	Tia Juana Light 31°	16.97	16.97	17.97	19.67	28.62	24.69	12.27	13.10
Venezuela	Bachaquero 24°	13.62	13.62	14.88	13.94	27.89	16.87	11.45	12.10
Venezuela	Bachaquero 17°	11.50	11.50	12.75	10.45	24.45	15.00	10.00	11.10
Gabon	Mandji 30°	14.30	13.97	15.60	14.55	23.25	19.05	14.00	12.10
Total OPEC <sup>3</sup>	NA	15.19	14.68	16.55	15.88	24.18	18.72	13.36	13.00
Non-OPEC									
United Kingdom	Brent Blend 38°	16.65	16.90	17.90	17.75	27.20	21.00	15.80	N/A
Norway	Ekofisk Blend 42°	17.10	16.65	18.15	18.00	27.25	20.75	15.85	14.20
Canada	Mixed Blend 30°	19.54	20.05	22.55	20.46	26.07	19.25	12.53	N/A
Canada	Lloydminster 22°	14.63	15.18	15.95	13.00	19.27	14.98	9.97	N/A
Mexico	Isthmus 33°	15.19	14.91	17.25	15.80	24.80	19.90	14.53	13.10
Mexico	Maya 22°	11.64	11.31	12.50	10.75	20.00	17.05	10.63	N/A
Colombia	Cano Limon 30°	15.51	15.36	16.58	15.73	24.95	20.15	15.20	N/A
Ecuador	Oriente 30°	15.65	15.15	15.62	13.94	22.87	18.81	13.56	12.30
Angola	Cabinda 32°	15.90	15.45	17.35	16.65	25.35	19.65	14.40	N/A
Cameroon	Kole 34°	15.90	15.45	17.35	16.65	25.85	20.15	14.90	N/A
Egypt <sup>4</sup>	Suez Blend 33°	13.60	13.10	14.75	15.20	24.25	16.75	12.75	12.80
Oman	Oman 34°	15.65	15.20	16.65	15.20	23.65	18.05	13.40	13.00
Australia	Glippersland 42°	17.55	17.25	18.60	21.35	26.75	19.65	16.00	N/A
Malaysia	Tapir Blend 44°	19.70	19.70	21.45	22.95	36.50	19.20	12.40	14.30
Brunei	Serai Light 37°	18.85	18.85	21.30	22.85	36.40	19.20	13.75	14.10
U.S.S.R. <sup>5</sup>	Export Blend 32°	14.90	15.25	16.30	16.55	26.05	20.25	14.55	13.20
China	Daqing 33°	17.65	17.40	19.00	18.50	26.10	18.15	15.30	13.70
Total Non-OPEC <sup>3</sup>	NA	16.12	15.99	17.47	16.87	25.78	19.29	14.06	13.40
Total World <sup>3</sup>	NA	15.52	15.15	16.86	16.22	24.72	18.91	13.58	13.00
United States <sup>6</sup>	NA	15.35	15.14	16.60	15.41	24.06	18.87	13.41	13.30

<sup>1</sup> Estimated contract prices based on government-selling prices, netback values, or spot market quotations. All prices are f.o.b. at the foreign port of loading except where noted; 30 day payment plan except where noted. See Appendix A for procedure used for calculation of world oil prices.

<sup>2</sup> An arbitrary scale expressing the gravity or density of liquid petroleum products.

<sup>3</sup> Average prices (f.o.b.) weighted by estimated export volume.

<sup>4</sup> On 60 days credit.

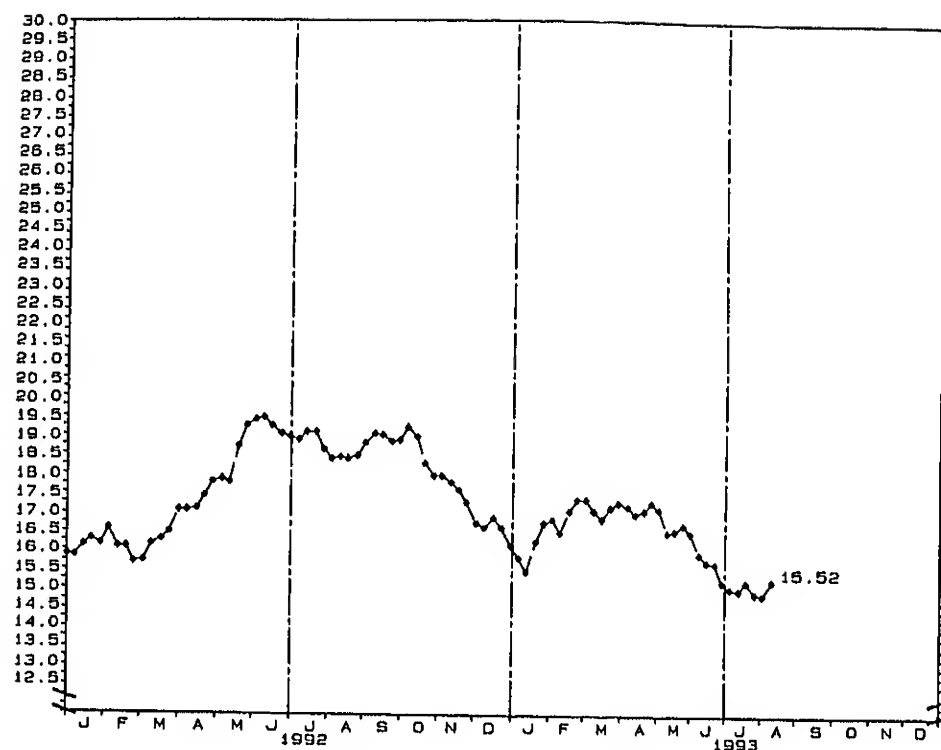
<sup>5</sup> Price (CIF) to Mediterranean destinations; also called Urals.

<sup>6</sup> Average prices (f.o.b.) weighted by estimated import volume.

NA=Not Applicable.

Source: See page 28.

Figure 9. World Crude Oil Price<sup>1</sup>  
(Dollars per Barrel)



<sup>1</sup> Average price (f.o.b.) of internationally traded oil only, weighted by estimated export volume.  
Source: See page 28.

Table 13. Spot Market Product Prices<sup>1</sup>, Rotterdam and New York  
(Dollars per Barrel)

Year/Month/Day	Motor Gasoline		Gas Oil/Heating Oil <sup>2</sup>		Residual Fuel Oil <sup>3</sup>	
	Rotterdam Unleaded Regular <sup>5</sup> (91 RON)	N.Y. <sup>4</sup> Unleaded Regular (87 Octane)	Rotterdam (0.3% Sulfur)	N.Y. <sup>4</sup> (0.2% Sulfur)	Rotterdam (1% Sulfur)	N.Y. <sup>6</sup> (1% Sulfur)
1992 Aug 21	24.38	26.33	22.86	25.48	15.84	15.75
Aug 28	23.92	26.27	23.99	25.56	14.64	15.50
Sep 4	24.15	27.29	24.13	26.16	14.79	16.00
Sep 11	24.03	26.00	25.20	26.46	14.64	16.15
Sep 18	24.50	25.95	25.40	26.77	15.09	16.85
Sep 25	24.50	25.07	25.20	27.16	15.77	17.50
Oct 2	24.09	25.01	25.34	27.25	17.19	17.60
Oct 9	24.09	25.67	25.87	27.71	17.42	17.60
Oct 16	25.44	25.64	26.88	28.23	17.42	18.00
Oct 23	23.56	25.31	25.80	27.73	18.02	18.00
Oct 30	24.15	25.43	25.34	27.29	17.57	17.90
Nov 6	23.86	26.44	24.26	26.93	15.69	17.00
Nov 13	23.97	23.21	24.80	26.81	15.62	16.35
Nov 20	23.68	23.78	23.59	26.60	15.32	16.50
Nov 27	23.45	23.29	23.59	26.44	14.94	16.40
Dec 4	22.27	21.71	22.79	25.59	12.76	15.00
Dec 11	21.34	21.74	23.06	25.12	12.46	13.50
Dec 18	21.10	23.40	23.19	25.17	12.76	13.75
Dec 25	21.34	22.91	23.46	25.54	12.76	14.25
1993 Jan 1	21.57	22.65	23.46	25.26	12.91	15.00
Jan 8	21.22	21.95	22.79	24.86	13.36	15.00
Jan 15	20.87	21.60	22.52	24.18	13.81	14.50
Jan 22	20.75	21.81	21.92	21.64	14.41	14.35
Jan 29	21.46	23.45	22.92	24.44	15.47	15.00
Feb 5	21.92	22.97	22.99	24.75	15.62	15.00
Feb 12	22.04	22.14	23.06	24.54	15.07	15.00
Feb 19	21.81	20.78	22.65	24.24	15.62	14.60
Feb 26	21.92	21.84	23.46	24.53	14.71	15.00
Mar 5	21.92	23.48	24.13	25.39	15.17	15.50
Mar 12	22.16	22.24	23.59	25.03	15.17	15.35
Mar 19	22.51	22.39	23.86	25.30	15.24	15.65
Mar 26	22.63	22.51	23.59	25.59	15.47	16.00
Apr 2	23.33	24.97	23.99	25.26	15.77	16.00
Apr 9	23.56	24.56	23.73	25.00	16.37	16.90
Apr 16	23.68	25.12	24.66	24.99	16.37	17.00
Apr 23	23.80	24.76	24.66	24.32	16.67	17.00
Apr 30	23.80	25.52	24.80	24.47	17.27	16.85
May 7	23.92	25.87	24.53	24.23	16.97	16.35
May 14	24.15	24.69	23.73	23.96	17.12	16.00
May 21	23.56	24.65	23.26	23.67	14.41	15.25
May 28	23.45	24.14	22.79	23.48	14.86	14.85
Jun 4	23.21	23.71	23.06	23.43	13.81	14.50
Jun 11	23.45	22.73	22.52	23.36	13.66	14.65
Jun 18	22.27	22.79	22.12	22.98	13.66	14.75
Jun 25	21.86	22.85	21.85	22.84	13.96	15.15
Jul 2	21.45	22.40	21.72	22.66	13.66	15.00
Jul 9	21.22	21.64	21.58	22.40	15.32	15.15
Jul 16	21.57	21.67	21.45	22.18	15.47	15.25
Jul 23	20.75	21.47	21.45	22.04	14.56	14.75
Jul 30	20.87	21.60	21.72	22.20	14.71	14.25
Aug 6	20.40	21.42	21.18	22.09	14.86	13.85
Aug 13	20.87	23.59	21.31	22.47	13.81	13.50
Aug 20	20.98	22.22	21.65	22.55	13.81	13.75

<sup>1</sup> See Appendix A for explanation of spot market product prices and coverage.

<sup>2</sup> Refers to No. 2 Heating Oil.

<sup>3</sup> Refers to No. 6 Oil.

<sup>4</sup> New York Harbor Reseller Barge Prices.

<sup>5</sup> Refers to Research Octane Number (RON) only. European unleaded regular motor gasoline of 91 RON is approximately equivalent to a U.S. antiknock index of 87 octane.

<sup>6</sup> East Coast Cargoes.

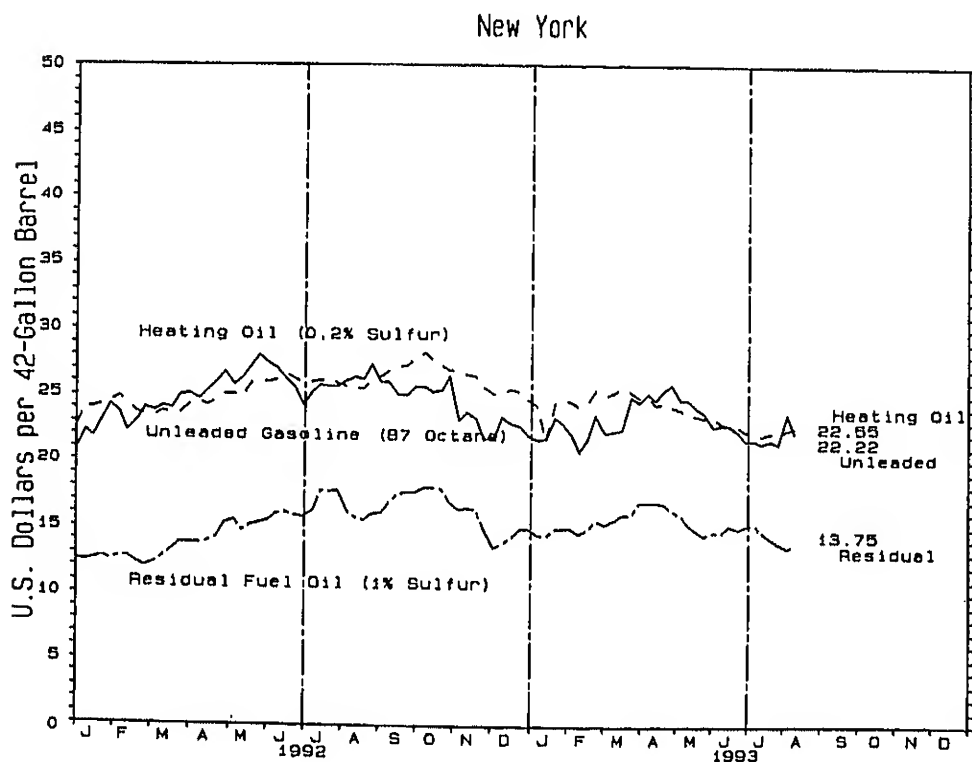
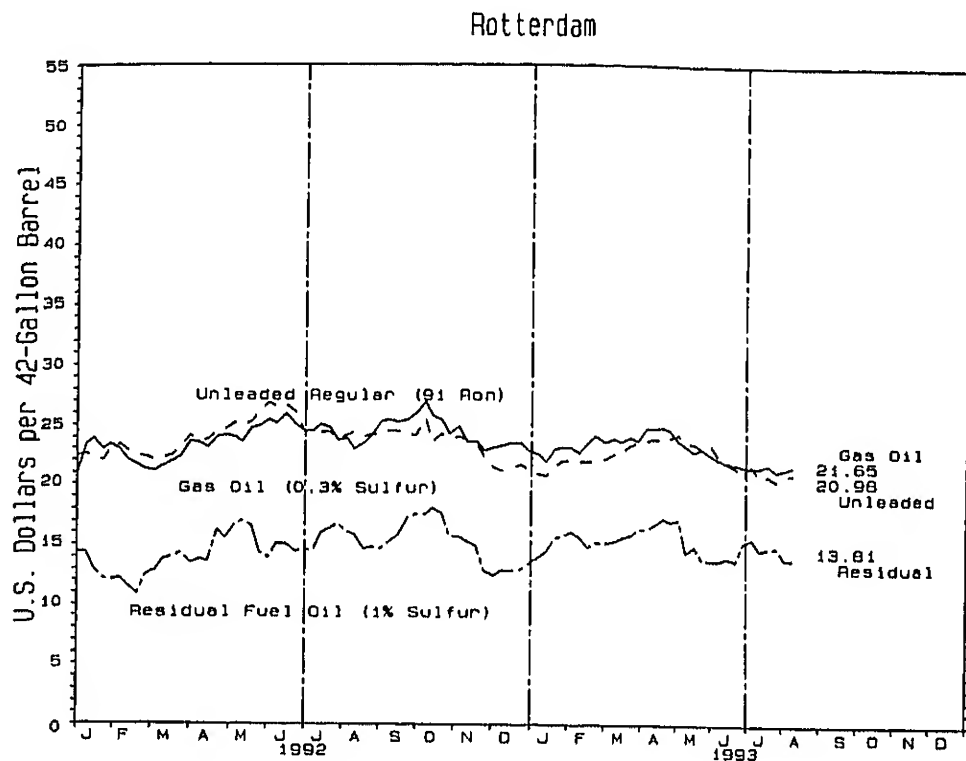
Source: See page 28.

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Figure 10. Spot Market Product Prices, Rotterdam and New York



Source: See page 28.

Table 14. U.S. and PADD Weekly Estimates, Most Recent 5 Weeks  
(Thousand Barrels per Day Except Where Noted)

	07/23/93	07/30/93	08/06/93	08/13/93	08/20/93
<b>Crude Oil Production</b>					
Domestic Production	6,540	6,730	6,753	6,761	6,774
<b>Refinery Inputs and Utilization</b>					
Crude Oil Inputs	14,208	14,119	14,229	14,072	13,965
East Coast (PADD I)	1,471	1,413	1,466	1,365	1,414
Midwest (PADD II)	3,200	3,180	3,200	3,217	3,197
Gulf Coast (PADD III)	6,393	6,416	6,526	6,379	6,313
Rocky Mountain (PADD IV)	475	477	463	460	472
West Coast (PADD V)	2,669	2,633	2,574	2,651	2,590
Gross Inputs	14,466	14,325	14,417	14,254	14,165
East Coast (PADD I)	1,476	1,405	1,442	1,342	1,376
Midwest (PADD II)	3,261	3,237	3,256	3,255	3,255
Gulf Coast (PADD III)	6,518	6,517	6,610	6,487	6,443
Rocky Mountain (PADD IV)	478	471	465	462	475
West Coast (PADD V)	2,734	2,695	2,644	2,708	2,635
Operable Capacity (Million Barrels per Day)	15.1	15.2	15.2	15.2	15.2
Percent Utilization	95.5	94.5	95.1	94.1	93.6
Operating Capacity (Million Barrels per Day)	15.0	14.9	14.9	14.9	14.9
Percent Utilization	96.5	95.9	96.6	95.5	95.0
<b>Production by Product</b>					
Finished Motor Gasoline	7,469	7,313	7,305	7,205	7,378
East Coast (PADD I)	738	786	718	700	674
Midwest (PADD II)	1,856	1,681	1,781	1,834	1,607
Gulf Coast (PADD III)	3,282	3,287	3,275	3,221	3,336
Rocky Mountain (PADD IV)	281	250	239	223	265
West Coast (PADD V)	1,332	1,309	1,292	1,227	1,296
Reformulated	0	0	0	0	0
East Coast (PADD I)	0	0	0	0	0
Midwest (PADD II)	0	0	0	0	0
Gulf Coast (PADD III)	0	0	0	0	0
Rocky Mountain (PADD IV)	0	0	0	0	0
West Coast (PADD V)	0	0	0	0	0
Oxygenated	145	758	741	825	908
East Coast (PADD I)	0	29	29	29	29
Midwest (PADD II)	121	562	548	572	516
Gulf Coast (PADD III)	17	75	72	126	258
Rocky Mountain (PADD IV)	0	15	15	12	12
West Coast (PADD V)	7	77	77	86	93
Other Finished	7,324	6,555	6,564	6,380	6,470
East Coast (PADD I)	738	757	689	671	645
Midwest (PADD II)	1,735	1,119	1,233	1,262	1,291
Gulf Coast (PADD III)	3,265	3,212	3,203	3,095	3,078
Rocky Mountain (PADD IV)	261	235	224	211	253
West Coast (PADD V)	1,325	1,232	1,215	1,141	1,203
Jet Fuel	1,519	1,504	1,491	1,487	1,420
Naphtha-Type	118	116	121	111	115
Kerosene-Type	1,401	1,388	1,370	1,376	1,305
East Coast (PADD I)	107	85	67	70	57
Midwest (PADD II)	199	199	207	245	197
Gulf Coast (PADD III)	659	685	661	623	613
Rocky Mountain (PADD IV)	25	28	26	35	18
West Coast (PADD V)	411	391	409	403	420
Commercial	1,312	1,287	1,293	1,272	1,255
East Coast (PADD I)	102	72	65	64	56
Midwest (PADD II)	196	198	204	242	194
Gulf Coast (PADD III)	614	633	626	576	576
Rocky Mountain (PADD IV)	25	28	26	35	18
West Coast (PADD V)	375	356	372	355	411
Military	89	101	77	104	50
East Coast (PADD I)	5	13	2	6	1
Midwest (PADD II)	3	1	3	3	3
Gulf Coast (PADD III)	45	52	35	47	37
Rocky Mountain (PADD IV)	0	0	0	0	0
West Coast (PADD V)	36	35	37	48	9

See footnotes at end of table.

Table 14. U.S. and PADD Weekly Estimates, Most Recent 5 Weeks (continued)  
(Thousand Barrels per Day Except Where Noted)

	07/23/93	07/30/93	08/06/93	08/13/93	08/20/93
<b>Production by Product</b>					
Distillate Fuel Oil	3,283	3,384	3,356	3,157	3,082
East Coast (PADD I)	476	433	415	447	424
Midwest (PADD II)	763	754	768	739	664
Gulf Coast (PADD III)	1,443	1,629	1,661	1,421	1,436
Rocky Mountain (PADD IV)	147	115	115	107	125
West Coast (PADD V)	454	453	397	443	433
0.05% Sulfur and under	696	836	1,287	1,016	1,207
East Coast (PADD I)	54	39	142	98	101
Midwest (PADD II)	119	94	221	138	267
Gulf Coast (PADD III)	251	481	727	560	583
Rocky Mountain (PADD IV)	29	25	28	24	31
West Coast (PADD V)	243	197	169	196	225
Greater than 0.05% Sulfur	2,587	2,548	2,069	2,141	1,075
East Coast (PADD I)	422	394	273	349	323
Midwest (PADD II)	644	660	547	601	397
Gulf Coast (PADD III)	1,192	1,148	934	861	853
Rocky Mountain (PADD IV)	118	90	87	83	94
West Coast (PADD V)	211	256	228	247	208
Residual Fuel Oil	754	774	764	732	788
East Coast (PADD I)	91	104	99	106	97
Midwest (PADD II)	53	53	52	53	57
Gulf Coast (PADD III)	290	303	283	301	313
Rocky Mountain (PADD IV)	4	7	6	3	7
West Coast (PADD V)	316	307	324	269	314
<b>Stocks (Million Barrels)</b>					
Crude Oil	356.6	352.2	353.0	348.5	343.8
East Coast (PADD I)	15.9	15.8	16.3	16.4	15.8
Midwest (PADD II)	78.1	79.1	79.3	77.2	79.7
Gulf Coast (PADD III)	176.4	175.8	174.1	175.8	170.6
Rocky Mountain (PADD IV)	12.0	11.7	11.9	11.6	11.5
West Coast (PADD V)	74.2	69.9	71.4	67.5	66.2
SPR	582.9	582.9	583.3	583.6	583.8
Total Motor Gasoline	214.3	215.0	209.1	207.7	202.0
East Coast (PADD I)	80.6	82.8	80.9	59.4	58.2
New England (PADD IX)	4.9	5.3	5.8	4.7	4.7
Central Atlantic (PADD IY)	31.6	32.6	30.7	30.1	30.4
Lower Atlantic (PADD IZ)	24.2	24.9	24.4	24.5	23.1
Midwest (PADD II)	56.4	55.1	54.7	53.1	54.1
Gulf Coast (PADD III)	63.3	62.8	61.4	63.4	57.7
Rocky Mountain (PADD IV)	6.1	5.9	5.6	5.4	5.0
West Coast (PADD V)	27.9	28.4	26.5	26.5	27.1
Finished Motor Gasoline	176.8	176.8	173.4	171.6	166.0
Reformulated	0.0	0.0	0.0	0.0	0.0
East Coast (PADD I)	0.0	0.0	0.0	0.0	0.0
Midwest (PADD II)	0.0	0.0	0.0	0.0	0.0
Gulf Coast (PADD III)	0.0	0.0	0.0	0.0	0.0
Rocky Mountain (PADD IV)	0.0	0.0	0.0	0.0	0.0
West Coast (PADD V)	0.0	0.0	0.0	0.0	0.0
Oxygenated	6.1	6.3	6.7	7.4	7.0
East Coast (PADD I)	2.7	3.0	3.2	3.1	2.8
Midwest (PADD II)	1.8	1.7	1.5	1.7	1.4
Gulf Coast (PADD III)	1.1	1.2	1.3	1.8	1.9
Rocky Mountain (PADD IV)	0.0	0.0	0.1	0.1	0.0
West Coast (PADD V)	0.5	0.5	0.7	0.8	0.8
Other Finished	170.7	170.5	166.6	164.2	158.9
East Coast (PADD I)	52.2	54.2	52.4	50.9	50.1
Midwest (PADD II)	46.3	45.0	45.2	43.4	44.6
Gulf Coast (PADD III)	48.6	46.0	45.4	46.8	41.3
Rocky Mountain (PADD IV)	4.6	4.4	4.1	3.9	3.7
West Coast (PADD V)	21.0	20.9	19.5	19.1	19.3
Blending Components	37.5	38.2	35.7	36.1	36.1

See footnotes at end of table.

Table 14. U.S. and PADD Weekly Estimates, Most Recent 5 Weeks (continued)  
(Thousand Barrels per Day Except Where Noted)

	07/23/93	07/30/93	08/06/93	08/13/93	08
<b>Stocks (Million Barrels)</b>					
Jet Fuel	47.2	46.6	46.9	46.4	
Naphtha-Type	4.1	3.7	4.0	4.1	
Kerosene-Type	43.1	42.9	42.9	42.3	
East Coast (PADD I)	11.4	12.1	11.6	11.9	
Midwest (PADD II)	8.8	8.3	8.8	8.4	
Gulf Coast (PADD III)	14.8	14.9	14.8	14.3	
Rocky Mountain (PADD IV)	0.5	0.6	0.5	0.5	
West Coast (PADD V)	7.6	7.1	7.3	7.2	
Distillate Fuel Oil	120.3	121.3	121.6	122.9	
East Coast (PADD I)	50.6	51.2	52.2	54.0	
New England (PADD IX)	10.0	8.9	9.7	9.7	
Central Atlantic (PADD IY)	28.7	30.7	31.8	34.9	
Lower Atlantic (PADD IZ)	12.0	11.6	10.8	9.4	
Midwest (PADD II)	29.1	29.8	27.7	27.4	
Gulf Coast (PADD III)	26.1	26.8	28.6	28.4	
Rocky Mountain (PADD IV)	2.4	2.4	2.3	2.1	
West Coast (PADD V)	12.0	11.2	11.0	11.0	
0.05% Sulfur and under	22.1	24.3	30.4	33.9	
East Coast (PADD I)	9.5	10.4	12.2	14.3	
New England (PADD IX)	2.8	1.4	1.6	2.1	
Central Atlantic (PADD IY)	5.9	7.8	9.3	10.9	
Lower Atlantic (PADD IZ)	0.8	1.2	1.3	1.3	
Midwest (PADD II)	3.0	3.9	5.1	6.5	
Gulf Coast (PADD III)	4.3	5.3	8.0	7.6	
Rocky Mountain (PADD IV)	0.4	0.4	0.4	0.4	
West Coast (PADD V)	4.9	4.2	4.7	5.2	
Greater than 0.05% Sulfur	98.2	97.0	91.4	89.0	
East Coast (PADD I)	41.2	40.8	40.0	39.7	
New England (PADD IX)	7.2	7.5	8.0	7.6	
Central Atlantic (PADD IY)	22.8	23.0	22.4	24.0	
Lower Atlantic (PADD IZ)	11.2	10.4	9.5	8.1	
Midwest (PADD II)	26.1	25.9	22.6	20.9	
Gulf Coast (PADD III)	21.8	21.4	20.6	20.8	
Rocky Mountain (PADD IV)	2.0	2.0	1.9	1.7	
West Coast (PADD V)	7.1	6.9	6.2	5.8	
Residual Fuel Oil	43.9	41.5	43.2	43.0	
East Coast (PADD I)	16.0	14.3	15.6	16.2	
New England (PADD IX)	1.9	1.6	1.8	1.6	
Central Atlantic (PADD IY)	11.8	10.5	11.5	12.2	
Lower Atlantic (PADD IZ)	2.3	2.2	2.4	2.4	
Midwest (PADD II)	4.2	3.7	3.8	3.5	
Gulf Coast (PADD III)	16.5	15.5	15.6	15.2	
Rocky Mountain (PADD IV)	0.4	0.4	0.4	0.4	
West Coast (PADD V)	6.9	7.6	7.7	7.8	
Unfinished Oils	100.3	101.8	103.3	104.0	
Other Oils	202.3	209.7	211.3	212.7	
Total Stocks Excl SPR	1,084.9	1,088.1	1,088.6	1,085.3	
Total Stocks Incl SPR	1,667.8	1,671.1	1,672.0	1,668.9	
<b>Imports</b>					
Total Crude Oil Incl SPR	5,510	6,369	6,784	6,277	
Crude Oil Excl SPR	5,510	6,369	6,784	6,277	
East Coast (PADD I)	1,017	1,267	1,307	1,358	
Midwest (PADD II)	759	931	780	669	
Gulf Coast (PADD III)	3,402	3,949	4,385	3,819	
Rocky Mountain (PADD IV)	69	74	88	79	
West Coast (PADD V)	263	148	224	352	
SPR	0	0	0	0	
Total Motor Gasoline	343	93	356	204	
Reformulated	0	0	0	0	
Oxygenated	0	0	0	0	
Other Finished	279	93	320	199	
Blending Components	64	0	36	5	

See footnotes at end of table.

Table 14. U.S. and PADD Weekly Estimates, Most Recent 5 Weeks (continued)  
(Thousand Barrels per Day Except Where Noted)

	07/23/93	07/30/93	08/06/93	08/13/93	08/20/93
<b>Imports</b>					
Jet Fuel	139	53	69	61	163
Naphtha-Type	23	13	0	0	0
Kerosene-Type	116	40	69	61	163
Distillate Fuel Oil	185	59	201	215	109
0.05% Sulfur and under	65	32	80	65	62
Greater than 0.05% Sulfur	120	27	121	150	47
Residual Fuel Oil	224	366	814	388	320
Other	800	1,084	849	955	674
Total Refined Products Imports	1,691	1,655	2,289	1,823	1,509
Gross Imports (Incl SPR)	7,201	8,024	9,073	8,100	7,483
Net Imports (Incl SPR)	6,351	7,182	8,228	7,255	6,638
<b>Exports</b>					
Total	E 850	E 842	E 845	E 845	E 845
Crude Oil	E 104	E 107	E 108	E 108	E 108
Products	E 746	E 735	E 737	E 737	E 737
<b>Products Supplied</b>					
Finished Motor Gasoline	7,916	7,336	8,033	7,581	8,187
Jet Fuel	1,328	1,623	1,500	1,602	1,964
Naphtha-Type	173	173	70	100	145
Kerosene-Type	1,155	1,450	1,430	1,502	1,819
Distillate Fuel Oil	3,069	3,152	3,338	3,081	2,672
Residual Fuel Oil	965	1,294	1,146	950	1,016
Other Oils	4,493	3,312	4,579	4,557	4,351
Total Products Supplied	17,771	16,717	18,595	17,752	18,190

E=Estimate based on data published for the most recent month in the *Petroleum Supply Monthly* except for exports and crude oil production. See Appendix for explanation of estimates of exports and crude oil production.

Note: Due to independent rounding, individual product detail may not add to total.

Source: See page 28.



**Table 15. Weather Summary, Selected U.S. Cities**  
(Population Weighted Cooling Degree-Days<sup>1</sup>)

Weather data reported in the *Weekly Petroleum Status Report* are taken directly from a computerized system implemented by the National Oceanic and Atmospheric Administration, Department of Commerce. The National Oceanic and Atmospheric Administration (NOAA)/NWS as a U.S. Government Agency, does not endorse any consumer information services.

The weather for the Nation, as measured by population-weighted cooling degree-days from January 1, 1993, through August 21, 1993, has been 22 percent warmer than last year and 4 percent warmer than normal.

U.S. Total Cooling Degree-Days (Population Weighted) and by City

	1993	1992	Normal	Percent Change	
				1993 vs. 1992	1993 vs. Normal
January 1 - December 31		1,026	1,158	--	--
January 1 - August 21	899	736	864	22	4
<b>Cities</b>					
Albuquerque	1,164	908	1,021	28	14
Amarillo	1,036	826	1,125	25	-8
Asheville	829	581	654	43	27
Atlanta	1,661	1,246	1,251	33	33
Billings	182	392	463	-51	-59
Boise	381	782	602	-51	-37
Boston	657	401	561	64	17
Buffalo	510	205	397	149	28
Cheyenne	162	132	265	23	-39
Chicago	595	333	600	79	-1
Cincinnati	925	557	818	66	13
Cleveland	608	342	488	78	25
Columbia, SC	1,702	1,419	1,528	20	11
Denver	526	429	563	23	-7
Des Moines	666	533	845	25	-21
Detroit	656	283	504	132	30
Fargo	288	236	420	22	-31
Hartford	629	342	564	84	12
Houston	2,050	1,935	1,936	6	6
Jacksonville	1,832	1,850	1,728	-1	6
Kansas City	981	674	1,075	46	-9
Las Vegas	2,344	2,466	2,221	-5	6
Los Angeles	432	638	385	-20	12
Memphis	1,694	1,459	1,565	16	8
Miami	2,939	2,711	2,628	8	12
Milwaukee	486	264	400	84	21
Minneapolis	381	276	579	38	-34
Montgomery	1,702	1,396	1,657	22	3
New York	1,041	734	820	42	27
Oklahoma City	1,441	1,163	1,446	24	0
Omaha	704	525	975	34	-28
Philadelphia	1,182	809	849	46	39
Phoenix	3,193	3,249	2,618	-2	22
Pittsburgh	728	398	513	83	42
Portland, ME	320	163	219	96	46
Providence	661	391	475	69	39
Raleigh	1,309	1,009	1,080	30	21
Richmond	1,238	898	1,027	38	21
St. Louis	1,261	1,049	1,150	20	10
Salem, OR	140	369	181	-62	-23
Salt Lake City	566	999	805	-43	-30
San Francisco	152	109	35	****	****
Seattle	85	247	141	-66	-40
Shreveport	1,748	1,586	1,781	10	-2
Washington, DC	1,291	905	1,102	43	17

<sup>1</sup> See Glossary.

\*\*\*\*=Normal cooling degree-days 100 or less, or ratio in calculable.

Table 16. U.S. Petroleum Balance Sheet, Week Ending 08/20/93

		Week Ending		Absolute Difference		
		08/20/93	08/13/93			
Petroleum Supply (Thousand Barrels per Day)						
<b>Crude Oil Supply</b>						
(1)	Domestic Production <sup>1</sup> .....	6,774	6,761	13		
(2)	Net Imports (Including SPR) <sup>2</sup> .....	5,866	6,169	303		
(3)	Gross Imports (Excluding SPR) .....	5,974	6,277	303		
(4)	SPR Imports .....	0	0	0		
(5)	Exports .....	108	108	0		
(6)	SPR Stocks Withdrawn (+) or Added (-) .....	-24	-36	12		
(7)	Other Stocks Withdrawn (+) or Added (-) .....	675	644	31		
(8)	Product Supplied and Losses .....	-10	-10	0		
(9)	Unaccounted-for Crude Oil <sup>3</sup> .....	704	545	159		
(10)	Crude Oil Input to Refineries .....	13,986	14,072	86		
<b>Other Supply</b>						
(11)	Natural Gas Liquids Production .....	1,830	1,830	0		
(12)	Other Liquids New Supply .....	112	112	0		
(13)	Crude Oil Product Supplied .....	10	10	0		
(14)	Processing Gain .....	806	811	5		
(15)	Net Product Imports <sup>4</sup> .....	772	1,086	314		
(16)	Gross Product Imports <sup>4</sup> .....	1,509	1,823	314		
(17)	Product Exports <sup>4</sup> .....	737	737	0		
(18)	Product Stocks Withdrawn (+) or Added (-) <sup>5</sup> .....	674	-169	843		
(19)	Total Product Supplied for Domestic Use .....	18,190	17,752	438		
<b>Products Supplied</b>						
(20)	Finished Motor Gasoline <sup>6</sup> .....	8,187	7,581	606		
(21)	Naphtha-Type Jet Fuel .....	145	100	45		
(22)	Kerosene-Type Jet Fuel .....	1,819	1,502	317		
(23)	Distillate Fuel Oil .....	2,672	3,061	389		
(24)	Residual Fuel Oil .....	1,016	950	66		
(25)	Other Oils <sup>7</sup> .....	4,351	4,557	206		
(26)	Total Products Supplied .....	18,190	17,752	438		
<b>Total Net Imports</b> .....		<b>6,638</b>	<b>7,255</b>	<b>617</b>		
<hr/>						
Petroleum Stocks (Million Barrels)		08/20/93	08/13/93	08/20/92	Percent Change from Previous Week      Year Ago	
Crude Oil (Excluding SPR) <sup>8</sup> .....		343.8	348.5	329.9	-1.3	4.2
Total Motor Gasoline .....		202.0	207.7	206.6	-2.7	-2.2
Reformulated .....		0.0	0.0	0.0	0.0	--
Oxygenated .....		7.0	7.4	0.0	-5.4	--
Other Finished .....		158.9	164.2	0.0	-3.2	--
Blending Components .....		36.1	36.1	34.7	0.0	4.0
Naphtha-Type Jet Fuel .....		3.8	4.1	4.7	-7.3	-19.1
Kerosene-Type Jet Fuel .....		39.8	42.3	41.1	-5.9	-3.2
Distillate Fuel Oil .....		125.5	122.9	119.6	2.1	4.9
0.05% Sulfur and under .....		41.7	33.9	0.0	23.0	--
Greater than 0.05% Sulfur .....		83.8	89.0	0.0	-5.8	--
Residual Fuel Oil .....		42.4	43.0	42.1	-1.4	0.7
Unfinished Oils .....		104.4	104.0	99.4	0.4	5.0
Other Oils <sup>9</sup> .....		214.1	212.7	207.1	0.7	3.4
Total Stocks (Excluding SPR) .....		1,075.8	1,085.3	1,050.5	-0.9	2.4
Crude Oil in SPR .....		583.8	583.6	569.9	0.0	2.4
Total Stocks (Including SPR) .....		1,659.6	1,668.9	1,620.4	-0.6	2.4

<sup>1</sup> Includes lease condensate.

<sup>2</sup> Net Imports = Gross imports (line 3) + Strategic Petroleum Reserve (SPR) Imports (line 4) - Exports (line 5).

<sup>3</sup> Unaccounted-for Crude Oil is a balancing item. See Glossary for further explanation.

<sup>4</sup> Includes finished petroleum products, unfinished oils, gasoline blending components, and natural gas plant liquids.

<sup>5</sup> Includes an estimate of minor product stock change based on monthly data.

<sup>6</sup> Includes field production of ethanol.

<sup>7</sup> Includes crude oil product supplied, natural gas liquids, liquefied refinery gases (LRGs), other liquids, and all finished petroleum products except motor gasoline, jet fuels, and distillate and residual fuel oils.

<sup>8</sup> Includes domestic and Customs-cleared foreign crude oil in transit to refineries.

<sup>9</sup> Includes stocks of all other oils such as aviation gasoline, kerosene, natural gas liquids and LRGs, other hydrocarbons and alcohol, aviation gasoline blending components, naphtha and other oils for petrochemical feedstock use, special naphthas, lube oils, waxes, coke, asphalt, road oil, and miscellaneous oils. For the current 2 weeks, stocks of these minor products are estimated from monthly data. (See Glossary: Stock change (Refined Products)).

E=Estimate based on data published for the most recent month in the *Petroleum Supply Monthly*, except for exports and crude oil production. See Appendix for explanation of estimates of exports and crude oil production.

Note: Due to independent rounding, individual product detail may not add to total.

Sources: See page 28.

# SOURCES

Table 1

- Current Year Data: Estimates based on weekly data collected on Forms EIA-800, -801, -802, -803, and -804; EIA, *Petroleum Supply Monthly*; and EIA, Office of Oil and Gas.
- Previous Year Data: Estimates based on EIA, *Petroleum Supply Annual*.

Table 2

- Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*, except for operable capacity for January 1993 which is from the *Petroleum Supply Annual*, 1992.
- Four-Week Averages: Estimates based on weekly data collected on Form EIA-800.

Figure 1

- Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*, except for operable capacity for January 1993 which is from the *Petroleum Supply Annual*, 1992.
- Four-Week Averages: Estimates based on weekly data collected on Form EIA-800.

Table 3

- Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*.
- Week-Ending Stocks: Estimates based on weekly data collected on Forms EIA-800, -801, -802, and -803.

Figure 2

- Data for Ranges and Seasonal Patterns: 1985-1991, EIA, *Petroleum Supply Annual*; 1992, EIA, *Petroleum Supply Monthly*.
- Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, *Petroleum Supply Monthly*.
- Week-Ending Stocks: Estimates based on weekly data collected on Forms EIA-800, -801, -802 and -803.

Table 4

- Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*.
- Week-Ending Stocks: Estimates based on weekly data collected on Forms EIA-800, -801, and -802.

Figure 3

- Data for Ranges and Seasonal Patterns: 1985-1991, EIA, *Petroleum Supply Annual*; 1992, EIA, *Petroleum Supply Monthly*.
- Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, *Petroleum Supply Monthly*.
- Week-Ending Stocks: Estimates based on weekly data collected on Forms EIA-800, -801, and -802.

Table 5

- Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*.
- Week-Ending Stocks: Estimates based on weekly data collected on Forms EIA-800, -801, and -802.

Figure 4

- Data for Ranges and Seasonal Patterns: 1985-1991, EIA, *Petroleum Supply Annual*; 1992, EIA, *Petroleum Supply Monthly*.
- Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, *Petroleum Supply Monthly*.
- Week-Ending Stocks: Estimates based on weekly data collected on Forms EIA-800, -801, and -802.

Table 6

- Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*.
- Week-Ending Stocks: Estimates based on weekly data collected on Forms EIA-800, -801, and -802.

Figure 5

- Data for Ranges and Seasonal Patterns: 1985-1991, EIA, *Petroleum Supply Annual*; 1992, EIA, *Petroleum Supply Monthly*.
- Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, *Petroleum Supply Monthly*.
- Week-Ending Stocks: Estimates based on weekly data collected on Forms EIA-800, -801, and -802.

Figure 6 and Table 7

- Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*.
- Four-Week Averages: Estimates based on weekly data collected on Form EIA-804.

Figure 7 and Table 8

- Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*.
- Four-Week Averages: Estimates based on weekly data collected on Form EIA-804.

Figure 8 and Table 9

- Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*.
- Four-Week Averages: Estimates based on weekly data collected on Forms EIA-800, -801, -802, -803, and -804.
- Projections: EIA, Office of Energy Markets and End Use (August 1993).

Table 10

- Refiner Acquisition Cost of Crude Oil: Form EIA-14, *Refiners Monthly Cost Report*.

Table 11

- Motor Gasoline - Bureau of Labor Statistics. See glossary description for *Retail Motor Gasoline Prices*.
- Residential Heating Oil - Forms EIA-782A, *Monthly Petroleum Product Sales Report*, and EIA-782B, *Monthly No. 2 Distillate Sales Report*.

Table 12 and Figure 9

- EIA, Office of Energy Markets and End Use, Energy Markets and Contingency Information Division.
- Platt's Oilgram Price Report.
- Petroleum Intelligence Weekly.
- Bloomberg Oil Buyers' Guide.
- Oil and Gas Journal.

Table 13 and Figure 10

- Bloomberg Oil Buyers' Guide.

Table 14

- Estimates based on weekly data collected on Forms EIA-800, -801, -802, -803, and -804.

Table 16

- Current Year Data: Estimates based on weekly data collected on Forms EIA-800, -801, -802, -803, and -804; EIA, *Petroleum Supply Monthly*; and EIA, Office of Oil and Gas.
- Previous Year Data: Estimates based on EIA, *Petroleum Supply Annual*.



## Appendix A

# Explanatory Notes

### EIA Weekly Data: Survey Design and Estimation Methods

The Weekly Petroleum Supply Reporting System (WPSRS) comprises five surveys: the "Weekly Refinery Report" (EIA-800); the "Weekly Bulk Terminal Report" (EIA-801); the "Weekly Product Pipeline Report" (EIA-802); the "Weekly Crude Oil Stocks Report" (EIA-803); and the "Weekly Imports Report" (EIA-804). The EIA weekly reporting system, as part of the Petroleum Supply Reporting System, was designed to collect data similar to those collected monthly. In the WPSRS, selected petroleum companies report weekly data to EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On the Forms EIA-800 through EIA-803, companies report data on a custody basis. On the Form EIA-804, the importer of record reports each shipment entering the United States. Current weekly data and the most recent monthly data are used to estimate the published weekly totals.

#### Sample Frame

The sample of companies that report weekly in the WPSRS was selected from the universe of companies that report monthly. All sampled companies report data only for facilities in the 50 States and the District of Columbia. The EIA-800 sample frame includes all operating and idle petroleum refineries and blending plants in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam and other U.S. possessions. The EIA-801 sample frame includes all bulk terminal facilities in the United States and its possessions that have total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline. The EIA-802 sample frame includes all petroleum product pipeline companies in the 50 States and the District of Columbia that transport refined petroleum products, including interstate, intrastate, and intracompany pipeline movements. Pipeline companies that transport only natural gas liquids are not included in the EIA-802 frame. Only those pipeline companies which transport products covered in the weekly survey are included. The EIA-803 sample frame consists of all companies which carry or store 1,000 barrels or more of crude oil. Included are gathering and trunk pipeline companies (including interstate, intrastate and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water in the 50 States and the District of Columbia. The EIA-804 sample frame includes all importers of record of crude oil and petroleum products into the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands and other U.S. possessions, as well as imports from Puerto Rico, the Virgin Islands and other U.S. possessions into the 50 States and the District of Columbia.

#### Sampling

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during

some previous period. Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers about 90 percent of the total for each item and each geographic region for which weekly data are published.

	Weekly Form	Monthly Frame Size	Weekly Sample Size
Refiners (Refineries)	EIA-800	168(250)	59(155)
Bulk Terminals	EIA-801	331	78
Product Pipelines	EIA-802	81	46
Crude Oil Stock Holders	EIA-803	162	78
Importers	EIA-804	851	81

#### Collection Methods

Data are collected by mail, mailgram, telephone, Telex, Telefax, and electronic transmission on a weekly basis. All canvassed firms must file by 5 p.m. on the Monday following the close of the report week, 7 a.m. Friday. During the processing week, company corrections of the prior week's data are also entered.

#### Estimation and Imputation

After the company reports have been checked and entered into the weekly data base, explicit imputation is done for companies which have not yet responded. The imputed values are exponentially smoothed means of recent weekly reported values for this specific company. The imputed values are treated like reported values in the estimation procedure, which calculates ratio estimates of the weekly totals. First, the current week's data for a given product reported by companies in a geographic region are summed. (Call this weekly sum,  $W_s$ .) Next, the most recent month's data for the product reported by those same companies are summed. (Call this monthly sum,  $M_s$ .) Finally, let  $M_t$  be the sum of most recent month's data for the product as reported by all companies. Then, the current week's ratio estimate for that product for all companies,  $W_t$ , is given by:

$$W_t = \frac{M_t}{M_s} \cdot W_s$$

This procedure is used directly to estimate total weekly inputs to refineries and production. To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Therefore, an exponentially smoothed ratio has been developed. The estimate of total weekly imports is the product of the smoothed ratio and the sum of the weekly reported values and imputed values.

## Response Rates

The response rate as of the day after the filing deadline is about 80 percent for the EIA-800, 75 percent for the EIA-801, 95 percent for the EIA-802, 80 percent for the EIA-803, and greater than 95 percent for the EIA-804. However, more forms are received the next day, bringing the final response rates up. Late respondents are contacted by telephone. Nearly all of the major companies report on time. The nonresponse rate for the published estimates is usually between 1 percent and 2 percent.

## Estimation of Domestic Crude Oil Production

Monthly data on crude oil production for States are reported to the Department of Energy by State conservation agencies. Data on the volume of crude oil produced on Federally-owned offshore leases are reported by the Minerals Management Service, U.S. Department of the Interior. There is a time lag of approximately 4 months between the end of the reporting month and the time when the monthly crude oil production information becomes available. In order to present more timely crude oil production volumes, the Energy Information Administration prepares weekly crude oil production estimates which are based on historical production patterns and, where available, other data such as pipeline runs from the Alaskan North Slope during the week. These weekly estimates are presented as the weekly and 4-week average crude oil production volumes shown in this publication. Cumulative crude oil production volumes shown in the U.S. Petroleum Balance Sheet include revised estimates published in the *Petroleum Supply Monthly*.

To assess the accuracy of weekly statistics, monthly estimates derived from weekly estimates are compared with the final monthly aggregates published in the *Petroleum Supply Annual*. Although final monthly data are still subject to error, they have been thoroughly reviewed and edited, they reflect all revisions made during the year and they are considered to be the most accurate data available. The mean absolute percent error provides a measure of the average revisions relative to the aggregates being measured for a variable. The mean absolute percent error for 1988 weekly data was less than 3 percent for 19 of the 30 major petroleum variables analyzed. Most of the variables with mean absolute percent errors of 3 percent or more were for refined products imports series. The mean absolute percent error for total weekly refined products imports was 15 percent for 1988. It should be noted that products imports data are highly variable and cannot be estimated from a sample with the same precision as other petroleum variables. Weekly estimates for refined products imports are almost always low because small companies, which are not in the weekly sample, generally import large volumes of finished products only a few times during the year.

An analytical article, "Timeliness and Accuracy of Petroleum Supply Data," which assesses the differences between interim and final data on the 30 major petroleum variables, is published in the *Petroleum Supply Monthly* once each year.

## Interpretation and Derivation of Average Inventory Levels

The national inventory (stocks) graphs for total petroleum products, crude oil, motor gasoline, distillate fuel oil, and residual fuel oil in this publication include features to assist in comparing current inventory levels with past inventory levels and with judgments of critical levels. Methods used in developing the average inventory levels and minimum operating levels are described below.

### Average Inventory Levels

The charts displaying inventory levels of crude oil and petroleum products (p.7), crude oil (p.7), motor gasoline (p.9), distillate fuel oil (p.11), and residual fuel oil (p.13) provide the reader with actual inventory data compared to an "average range" for the most recent 3-year period running from January through December or from July through June. The ranges also reflect seasonal variation for the past 7 years.

The seasonal factors, which determine the shape of the upper and lower curves, are estimated with a seasonal adjustment technique developed at the Bureau of Census (Census X-11). The seasonal factors are assumed to be stable (i.e., the same seasonal factor is used for each January during the 7-year period) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported inventory levels). The intent of deseasonalization is to remove only annual variation from the data. Thus, deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data. The seasonal factors are updated annually in October, using the 7 most recent years' final monthly data.

**Table A1. Values of Average Ranges in Inventory Graphs**  
(Million Barrels)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Lower Range												
Total Petroleum.....	1,029.6	1,010.9	994.2	999.0	1,024.3	1,029.3	1,049.9	1,049.3	1,060.6	1,053.0	1,058.5	1,031.1
Crude Oil.....	327.4	329.1	335.0	335.5	340.5	334.1	332.7	328.8	324.8	331.3	333.6	324.7
Motor Gasoline .....	225.4	227.3	213.4	210.1	208.6	203.9	208.4	205.3	212.2	204.0	207.3	210.4
Distillate Fuel Oil.....	123.9	107.0	95.0	94.4	97.8	102.6	114.7	121.2	129.1	126.9	131.0	131.5
Residual Fuel Oil .....	45.6	43.0	40.4	39.5	42.0	41.3	41.6	41.4	44.2	45.5	47.0	46.1
Upper Range												
Total Petroleum.....	1,072.0	1,053.4	1,036.7	1,041.4	1,066.8	1,071.7	1,092.3	1,091.8	1,103.1	1,095.4	1,100.9	1,073.5
Crude Oil.....	351.4	353.1	359.0	359.4	364.5	358.1	356.7	352.8	348.8	355.2	357.6	348.7
Motor Gasoline .....	237.3	239.2	225.3	222.0	220.5	215.9	220.3	217.2	224.1	215.9	219.2	222.3
Distillate Fuel Oil.....	133.9	116.9	104.9	104.3	107.7	112.5	124.6	131.1	139.0	136.8	140.9	141.4
Residual Fuel Oil .....	51.3	48.7	46.1	45.2	47.7	47.0	47.3	47.1	49.9	51.2	52.7	51.8

The seasonal factors are used to deseasonalize data from the most recent 3-year period (January-December or July-June) in order to determine a deseasonalized average band. The average of the deseasonalized 36-month series is the midpoint of the band, and two standard deviations of the series (adjusting first for extreme points) is its width. When the seasonal factors are added back in (the upper curve is the midpoint plus one standard deviation plus the seasonal factor, and the lower curve is the midpoint minus one standard deviation plus the seasonal factor), the "average range" shown on the graphs reflects the actual data. The ranges are updated every 6 months in April and October (Table A1).

### Minimum Observed Inventories

The lines labeled "observed minimum" on the stock graphs are the lowest inventory levels observed during the most recent 36-month period as published in the *Petroleum Supply Monthly*.

### Projections from the *Short-Term Energy Outlook*, Third Quarter 1993

The mid-price case for petroleum demands presented in the third quarter 1993 *Short-Term Energy Outlook* reflect the assumptions of real gross domestic product (GDP) growth of 2.7 percent in 1993 and 3.5 percent in 1994, and normal weather, as measured in number of heating and cooling degree days. In order to provide plausible ranges for the petroleum projections provided in the *Outlook*, ranges of macroeconomic, price, and weather assumptions are used.

The upper demand bound reflects an assumed combination of lower oil prices, higher economic growth, and more severe weather than those of the base case. In this scenario, real gross domestic product is expected to increase by 3.1 percent in 1993 and by 5.2 percent in 1994, and weather (in terms of heating degree-days) is assumed to be about 10 percent colder than the base case. The lower demand bound assumes that real gross domestic product increases by 2.4 percent in 1993 and by 1.9

percent in 1994 and that weather is significantly milder than in the base case.

The weather sensitivities assume deviations above and below normal that correspond to one-half of the largest quarterly deviations from normal in heating and cooling degree-days over the last 15 years. Average petroleum sensitivity factors for this forecast are summarized below:

- A 1-percent increase in real GDP raises petroleum demand by about 143,000 barrels per day.
- A \$1-per-barrel increase in crude oil prices, assuming no price response from non-petroleum energy sources, reduces demand by about 34,000 barrels per day.
- A 1-percent increase in heating degree-days increases demand by about 46,000 barrels per day; a 1-percent increase in cooling degree-days increases petroleum demand by about 20,000 barrels per day.

For more detailed information on the forecast, please refer to the published report, Third Quarter 1993 *Short-Term Energy Outlook*. Copies of the report are available from:

National Energy Information Center  
Room 1F-048, Forrestal Building  
1000 Independence Avenue, S.W.  
Washington, DC 20585  
Telephone (202) 586-8800

### Calculation of World Oil Price

The weighted average international price of oil, shown in the "Highlights" on page 1 and on page 18, is an average calculated using specific crude oil prices weighted by the estimated crude oil export volume for each oil-producing country. To develop the table shown on page 18, a list of major oil producing/exporting countries was chosen. For each country, the contract selling price of one or more representative crude oils was determined by investigating a number of industry

publications (i.e., "Oil Buyers' Guide", "Platt's Oilgram Price Report", "Petroleum Intelligence Weekly", and "Weekly Petroleum Argus") and by contacting oil market analysts.

Then, the appropriate crude oil volumes to be used as weighting factors for each country were determined. These volumes are estimates based on a number of sources which provide data on production, consumption, and exports for these countries. Export volumes for a number of smaller producing/exporting countries, not listed in the table, are included in the weighting factors. After the export volumes had been determined, simple mathematical weighted averages were calculated to arrive at the "Total OPEC," "Total Non-OPEC," and "Total World" prices.

The average United States (FOB) import price is derived by the same basic procedure as the world oil price, that is, taking the representative contract crude oil price of a specific crude oil from a particular country and weighting this price by a certain volume of oil. In this case, the weighting factors are the volumes of oil imported into the U.S. from pertinent countries. Volumes from a number of smaller producing/exporting countries, not listed in the table, are included in the weighting

Import and export volumes are preliminary. Due to these estimates cannot be fully verified. These are updated monthly, or more frequently when changes in conditions make updating appropriate.

## Explanation and Coverage of Spot Market Product Prices

Definition of spot market product prices for the Rotterdam market: Represent the mid point of the bid/asked price range for CIF cargoes scheduled for prompt arrival at Rotterdam (within 48 hours).

Definition of spot market product prices for the New York market: Represent last sale price reported or offered. Prices are ex-duty and do not include Federal or State taxes.

General definition of spot prices: A transaction concluded "on the spot," that is, on a one-time prompt delivery basis, usually referring to a transaction involving only one cargo of product. This contrasts with a term contract sale which obligates the seller to furnish product on an evenly-spread delivery basis over an extended period of time, usually for 1 year.

Coverage of petroleum product prices is restricted to and updated according to the major products traded. Major products are determined by the highest number of transactions and the highest volumes of product traded, e.g., 1987 replacement of the New York leaded regular gasoline series with the unleaded regular gasoline series.

# Appendix B

## EIA-819M

### Monthly Oxygenate Telephone Report

EIA-819M, "Monthly Oxygenate Telephone Report," provides production data and preliminary stock data for fuel ethanol and methyl tertiary butyl ether (MTBE) in the United States and major U.S. geographic regions. These data have been published in the *Weekly Petroleum Status Report* (WPSR) and the *Petroleum Supply Monthly* (PSM) since March 1992.

Data are collected from a sample of respondents reporting on the Monthly Petroleum Supply Reporting System surveys. Final data on production and stocks of fuel ethanol and MTBE are presented in the Detailed Statistics section of the *PSM* beginning with the March 1993 issue. The quantity of oxygenates blended into motor gasoline previously published in this appendix is now presented in the Highlights section of the *PSM*.

Table B1. U.S. Summary Table, July 1993

Products	July 1993		June 1993		Year-to-Date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
Fuel Ethanol						
Production.....	2,133	69	2,270	76	15,764	74
Stocks.....	2,459	--	2,499	--	2,459	--
MTBE						
Production.....	4,820	155	3,775	126	27,028	127
Stocks.....	16,044	--	14,544	--	16,044	--

Source: Energy Information Administration (EIA) Form EIA-819M, "Monthly Oxygenate Telephone Report."

Table B2. Monthly Fuel Ethanol Production and Stocks by Petroleum Administration  
for Defense Districts (PADD)  
(Thousand Barrels per Day, Except Where Noted)

District/Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Total U.S.</b>												
Production												
1992	78	71	68	68	68	66	66	70	67	74	74	75
1993	76	73	77	76	74	76	69					
Stocks (thous. bbls.)												
1992	1,076	1,287	1,462	1,457	1,858	1,941	2,362	2,530	2,973	2,980	2,547	1,791
1993	2,036	1,929	1,878	2,069	2,314	2,499	2,459					
<b>East Coast (PADD I)</b>												
Production												
1992	W	W	W	W	W	W	W	W	W	W	W	W
1993	W	W	W	W	W	W	W					
Stocks (thous. bbls.)												
1992	85	93	100	82	88	67	200	207	177	163	139	99
1993	117	64	62	41	136	112	37					
<b>Midwest (PADD II)</b>												
Production												
1992	73	66	63	64	64	61	61	66	66	72	72	73
1993	74	71	75	74	73	74	67					
Stocks (thous. bbls.)												
1992	532	662	791	794	1,010	1,143	1,344	1,361	1,639	1,553	1,279	889
1993	1,094	1,124	1,143	1,310	1,322	1,413	1,570					
<b>South (PADD III)</b>												
Production												
1992	W	W	W	W	W	W	W	W	W	W	W	W
1993	W	W	W	W	W	W	W					
Stocks (thous. bbls.)												
1992	248	344	394	452	530	464	562	612	405	477	465	254
1993	203	244	216	294	312	333	358					
<b>West (PADD IV)</b>												
Production												
1992	W	W	W	W	W	W	W	W	W	W	W	W
1993	W	W	W	W	W	W	W					
Stocks (thous. bbls.)												
1992	27	11	20	14	15	12	17	20	21	44	60	70
1993	61	44	45	41	42	45	47					
<b>Northwest (PADD V)</b>												
Production												
1992	W	W	W	W	W	W	W	W	W	W	W	W
1993	W	W	W	W	W	W	W					
Stocks (thous. bbls.)												
1992	184	177	150	144	214	254	240	330	732	743	604	479
1993					22	596	447					

Totals may not equal sum of components due to independent rounding.  
Oxygenate Telephone Report.

Table B3. Monthly Methyl Tertiary Butyl Ether (MTBE) Production, and Stocks  
by Petroleum Administration for Defense Districts (PADD)  
(Thousand Barrels per Day, Except Where Noted)

District/Months	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Total U.S.</b>												
Production												
1992	98	94	89	79	90	90	101	91	104	118	128	125
1993	115	114	112	138	132	126	155					
Stocks (thous. bbls.)												
1992	11,999	12,681	13,966	14,962	15,961	18,887	20,436	23,131	22,853	19,208	16,342	13,818
1993	10,648	10,148	10,550	11,953	13,476	14,544	16,044					
<b>East Coast (PADD I)</b>												
Production												
1992	W	W	W	W	W	W	W	W	W	W	W	W
1993	W	W	W	W	W	W	W					
Stocks (thous. bbls.)												
1992	3,086	2,944	3,551	3,929	4,453	4,663	4,824	5,046	4,875	3,839	3,098	2,613
1993	1,881	1,833	1,492	1,598	2,201	2,578	2,429					
<b>Midwest (PADD II)</b>												
Production												
1992	W	W	W	W	W	W	W	W	W	W	W	W
1993	W	W	W	W	W	W	W					
Stocks (thous. bbls.)												
1992	W	W	W	W	W	W	W	W	W	W	W	W
1993	W	W	W	W	W	W	W					
<b>Gulf Coast (PADD III)</b>												
Production												
1992	88	82	77	69	77	77	88	78	93	108	118	114
1993	102	101	99	124	117	111	139					
Stocks (thous. bbls.)												
1992	5,104	5,711	6,058	6,728	6,870	8,549	8,928	9,847	9,192	8,309	7,380	6,159
1993	4,987	4,707	5,304	6,152	6,553	6,890	7,834					
<b>Rocky Mountain (PADD IV)</b>												
Production												
1992	W	W	W	W	W	W	W	W	W	W	W	W
1993	W	W	W	W	W	W	W					
Stocks (thous. bbls.)												
1992	W	W	W	W	W	W	W	W	W	W	W	W
1993	W	W	W	W	W	W	W					
<b>West Coast (PADD V)</b>												
Production												
1992	W	W	W	W	W	W	W	W	W	W	W	W
1993	W	W	W	W	W	W	W					
Stocks (thous. bbls.)												
1992	3,418	3,673	4,011	4,064	4,309	5,385	6,419	7,936	8,466	6,723	5,543	4,768
1993	3,536	3,333	3,516	3,921	4,427	4,774	5,452					

W = Withheld to avoid disclosure of individual company data.

Note: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration (EIA) Form EIA-819M, "Monthly Oxygenate Telephone Report."





sales, and acquisitions) of petroleum facilities producing, transporting, importing, and/or storing crude oil and petroleum products. These sources are augmented by articles in newspapers, letters from respondents indicating changes in status, and information received from survey systems operated by other offices. Survey managers review these sources to monitor changes in company operations and to develop lists of potential respondents. These activities assure coverage of the reporting universe and maintain accurate facility information on addresses and ownership.

To supplement monthly frames maintenance activities and to provide more comprehensive coverage, the PSD conducts an annual frames investigation. This annual evaluation results in the reassessment and recompilation of the complete frame.

## Quality Control and Data Revision

### Quality Control

Survey forms are periodically reviewed for completeness, meaningfulness, and clarity. Modifications are made, when needed, to maintain efficient measure of the intended data items and to track product movement accurately throughout the industry. Through this process, the EIA can maintain consistency among forms, minimize respondent burden, and eliminate ambiguity.

### Response Rate

The response rate is usually 98 to 100 percent. Chronic nonrespondents and late filing respondents are contacted by telephone or in writing and reminded of their requirement to report. Companies that file late or fail to file are subject to criminal fines, civil penalties, and other sanctions as provided by Section 13(i) of the Federal Energy Administration (FEA) Act.

### Resubmissions

Resubmissions are any changes to the originally submitted data that were either requested by the EIA or initiated by the respondent. Resubmissions are compared with the original submission and processed at the time of receipt. Entries on Tables B1-B3 of this appendix will be marked with an "R" to indicate that data have been revised.

## Data Imputation and Estimation

In any survey, nonresponse can be a major concern because the effects can cause serious bias in survey results. Nonresponse occurs whenever requested information is not obtained from all units in a survey. The EIA-819M has a very high response rate. Whenever survey responses are not received in time to be included in published statistics, the data are imputed. Although imputing for missing data may not eliminate the total error associated with nonresponse, it can serve to reduce the error. The data reported in the previous month are used as imputed values for missing data.

After the data files have been edited and corrected, aggregation is done for production, imports, and stocks, by each geographic region. Estimation factors, which were derived from 1992 reported data, are then applied to each cell to generate published estimates.

## Confidentiality

The Office of Legal Counsel of the Department of Justice concluded on March 20, 1991, that the Federal Energy Administration Act requires the EIA to provide company-specific data to the Department of Justice, or to any other Federal agency when requested for official use, which may include enforcement of Federal law. The information contained on this form may also be made available, upon request, to another component of the Department of Energy (DOE), to any Committee of Congress, the General Accounting Office, or other Congressional agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order.

The information contained on this form will be kept confidential and not disclosed to the public to the extent that it satisfies the criteria for exemption under the Freedom of Information Act (FOIA), 5 U.S.C. 552, the DOE regulations, 10 C.F.R. 1004.11, implementing the FOIA, and the Trade Secrets Act, 18 U.S.C. 1905.

Upon receipt of a request for this information under the FOIA, the DOE shall make a final determination whether the information is exempt from disclosure in accordance with the procedures and criteria provided in the regulations. To assist us in the determination, respondents should demonstrate to the DOE that for example, their information contains trade secrets or commercial or financial information whose release would be likely to cause substantial harm to their company's competitive position. A letter accompanying the submission that explains (on an element-by-element basis) the reasons why the information would be likely to cause the respondent substantial competitive harm if released to the public would aid in this determination. A new justification does not need to be provided each time information is submitted on the form, if the company has previously submitted a justification for that information and the justification has not changed.

## EIA-819M Definitions

**Alcohol.** The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group;  $\text{CH}_3\text{-(CH}_2\text{)}_n\text{-OH}$  (e.g., methanol, ethanol, and tertiary butyl alcohol (TBA)).

**Blending Plant.** A facility which has no refining capability but is either capable of producing finished

motor gasoline through mechanical blending or blends oxygenates into motor gasoline.

**Bulk Station.** A facility used primarily for the storage and/or marketing of petroleum products which has a total bulk storage capacity of less than 50,000 barrels and receives its petroleum products by tank car or truck.

**Bulk Terminal.** A facility used primarily for the storage and/or marketing of petroleum products which has a total bulk storage capacity of 50,000 barrels or more and/or receives petroleum products by tanker, barge, or pipeline.

**Ending Stocks.** Stocks of oxygenates held in storage as of 12 midnight on the last day of the month.

**ETBE (ethyl tertiary butyl ether)  $(CH_3)_3COC_2H_5$ .** An oxygenate blend stock formed by the catalytic etherification of isobutylene with ethanol.

**Ether.** A generic term applied to a group of organic chemical compounds composed of carbon, hydrogen, and oxygen, characterized by an oxygen atom attached to two carbon atoms (e.g., methyl tertiary butyl ether).

**Fuel Ethanol  $(C_2H_5OH)$ .** An anhydrous denatured aliphatic alcohol intended for gasoline blending as described in Oxygenate definition.

**Methanol  $(CH_3OH)$ .** A light volatile alcohol intended for gasoline blending as described in Oxygenate definition.

**MTBE (methyl tertiary butyl ether)  $(CH_3)_3COCH_3$ .** An ether intended for gasoline blending as described in Oxygenate definition.

**Other Oxygenates.** Other aliphatic alcohols and aliphatic ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol).

**Oxygenates.** Any substance which, when added to gasoline, increases the amount of oxygen in that gasoline blend.

volume exclusive of other oxygenates, and butanol or alcohols of a higher molecular weight up to 2.75 percent by weight.

Individual waivers pertaining to the use of oxygenates in unleaded gasoline have been issued by the EPA. They include:

**Fuel Ethanol.** Blends of up to 10 percent by volume anhydrous ethanol (200 proof) (commonly referred to as the "gasohol waiver").

**Methanol.** Blends of methanol and gasoline-grade tertiary butyl alcohol (GTBA) such that the total oxygen content does not exceed 3.5 percent by weight and the ratio of methanol to GTBA is less than or equal to 1. It is also specified that this blended fuel must meet ASTM volatility specifications (commonly referred to as the "ARCO" waiver).

Blends of up to 5.0 percent by volume methanol with a minimum of 2.5 percent by volume co-solvent alcohols having a carbon number of 4 or less (i.e., ethanol, propanol, butanol, and/or GTBA). The total oxygen must not exceed 3.7 percent by weight, and the blend must meet ASTM volatility specifications as well as phase separation and alcohol purity specifications (commonly referred to as the "DuPont" waiver).

**MTBE (methyl tertiary butyl ether).** Blends up to 15.0 percent by volume MTBE which must meet the ASTM D4814 specifications. Blenders must take precautions that the blends are not used as base gasolines for other oxygenated blends (commonly referred to as the "Sun" waiver).

**Refinery.** An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, alcohol and oxygenates.

**TAME (tertiary amyl methyl ether)  $(CH_3)_2(C_2H_5)COCH_3$ .** An oxygenate blend stock formed by the catalytic etherification of isoamylene with methanol.

**TBA (tertiary butyl alcohol)  $(CH_3)_3COH$ .** An alcohol primarily used as a chemical feedstock, a solvent or feedstock for isobutylene production for MTBE; produced as a co-product of propylene oxide production or by direct hydration of isobutylene.

## Appendix C

# EIA-807 Monthly Propane Report Summary

Table C1. Monthly Stocks of Propane/Propylene by Petroleum Administration for Defense Districts (PADD) I, II, and III (Million Barrels)

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Total U.S.</b>												
1991	35.0	30.1	29.8	35.2	41.8	48.5	51.0	52.3	51.6	52.7	51.6	47.6
1992	38.9	33.1	32.6	36.2	44.1	50.3	55.7	59.3	60.8	58.1	50.8	38.9
1993	33.5	26.2	21.8	28.8	36.9	E 44.9	E 51.7					
<b>East Coast (PADD I)</b>												
1991	4.1	3.5	3.8	4.2	4.1	4.2	3.9	3.3	3.6	4.1	4.2	4.1
1992	2.9	2.6	2.4	2.4	2.7	3.1	3.5	4.0	4.3	4.3	4.7	3.7
1993	3.2	2.0	1.6	2.1	2.5	E 3.8	E 4.3					
<b>New England (PADD 1X)</b>												
1991	0.5	0.3	0.3	0.6	0.2	0.4	0.3	0.1	0.4	0.4	0.4	0.5
1992	0.3	0.5	0.4	0.3	0.3	0.3	0.3	0.5	0.5	0.3	0.5	0.5
1993	0.5	0.3	0.1	0.4	0.2	E 0.7	E 0.5					
<b>Central Atlantic (PADD 1Y)</b>												
1991	1.7	1.4	1.2	1.3	1.6	1.9	1.8	1.8	2.0	2.0	1.8	1.6
1992	1.1	0.9	0.9	0.8	1.2	1.5	1.9	2.0	2.1	2.2	2.1	1.5
1993	1.2	0.6	0.6	0.6	1.1	E 1.8	E 2.2					
<b>Lower Atlantic (PADD 1Z)</b>												
1991	1.9	1.8	2.3	2.3	2.3	1.9	1.8	1.4	1.2	1.7	2.0	2.0
1992	1.4	1.1	1.2	1.2	1.1	1.3	1.2	1.5	1.7	1.9	2.1	1.6
1993	1.5	1.0	0.9	1.1	1.3	E 1.3	E 1.6					
<b>Midwest (PADD II)</b>												
1991	12.9	11.1	11.7	13.8	17.1	20.2	21.8	23.3	22.9	22.6	20.3	17.7
1992	14.3	12.9	13.4	15.4	18.4	20.9	23.4	24.5	24.6	21.6	16.3	11.6
1993	10.7	7.7	7.4	9.9	12.7	E 14.9	E 16.6					
<b>Gulf Coast (PADD III)</b>												
1991	17.2	14.8	13.6	16.5	19.7	22.9	23.9	23.9	22.9	23.6	24.7	23.9
1992	20.5	16.5	15.7	17.4	21.6	24.7	27.0	28.7	29.8	29.9	27.8	22.1
1993	18.8	15.9	12.2	16.2	20.7	E 25.0	E 29.5					

### Propane Inventory Situation as of July 31, 1993

U.S. stocks of propane continued to climb, reaching 51.7 million barrels (MMB) as of July 31, 1993. The 6.9 MMB increase from the prior month boosted the Nation's inventory of propane to a level just above the lower limit of its seasonally adjusted average range of the last three years. According to industry sources, it is anticipated that propane inventories will reach nearly 60 MMB by the beginning of the upcoming heating season.

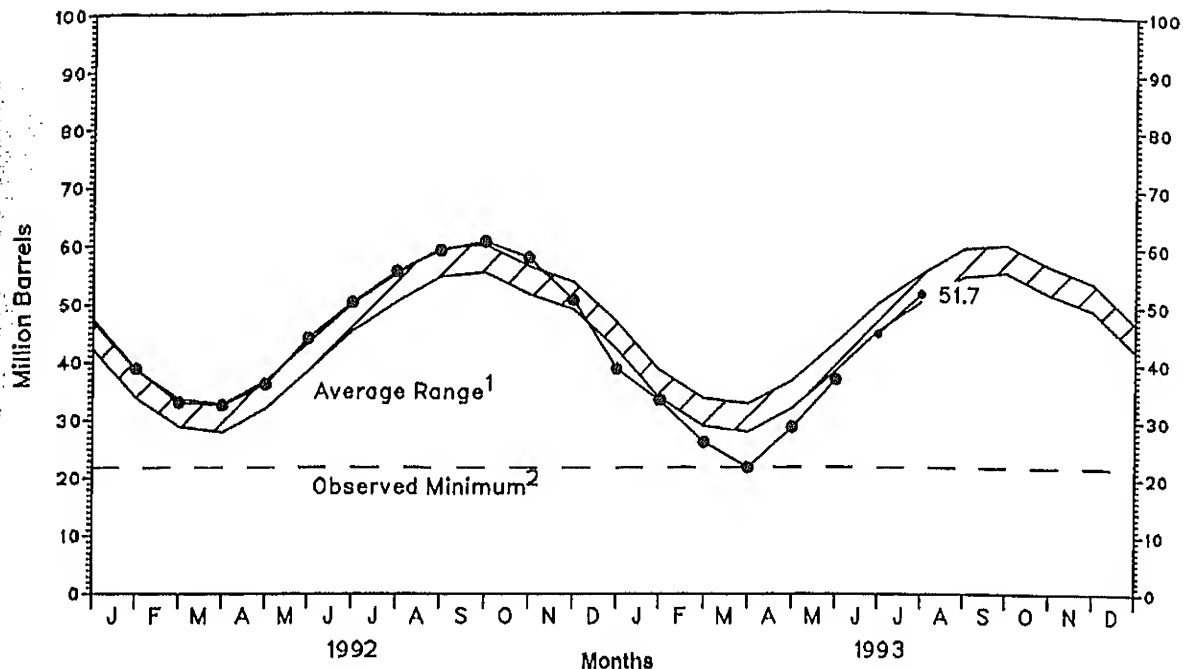
Regionally, inventory levels increased in PAD Districts I, II, and III. During July 1993, East Coast (PAD District I) stocks increased by 0.6 MMB, the Midwest (PAD District II) rose by 1.6 MMB, and the Gulf Coast (PAD District III) increased by 4.5 MMB. In the Midwest where flooding caused by the Mississippi River has produced significant damage, some propane suppliers have reported the occurrence of only minor problems. Furthermore, industry sources have indicated they do not think this disaster will strain the delivery or supply systems.

E=Estimated data.

Notes: • This table presents monthly data, derived from a cut-off sample of refineries, fractionators, and companies that store propane, which have been extrapolated to the universe of companies reporting in PADD's I, II, and III. • Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration (EIA), 1991/1992 *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*. Estimated data collected on Form EIA-807, "Propane Telephone Survey."

Figure C1. U.S. Propane/Propylene Stocks, January 1992 to Present

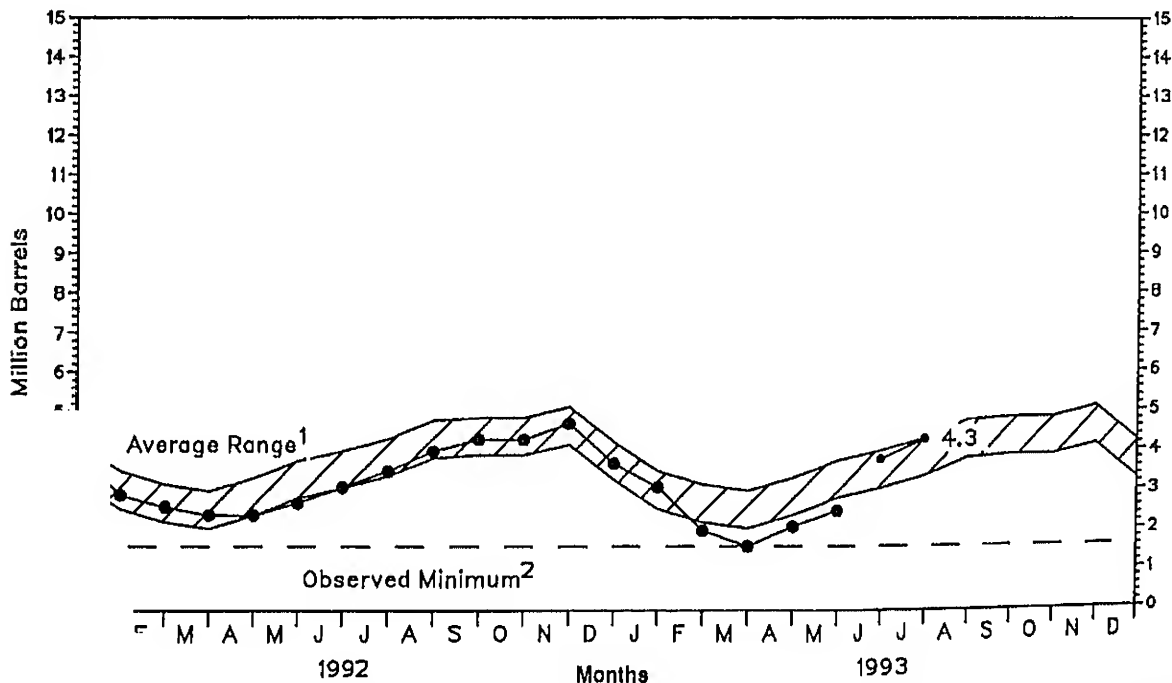


<sup>1</sup> Average level and width of average range are based on 3 years of monthly data: January 1990-December 1992. The seasonal pattern is based on 7 years of monthly data.

<sup>2</sup> The Observed Minimum for propane stocks is based on final monthly data for the last 36 month period and was 21.8 million barrels, occurring in March 1993.

Source: • Data for Ranges and Seasonal Patterns: 1985-1991, Energy Information Administration (EIA), *Petroleum Supply Annual*; 1992, EIA, *Petroleum Supply Monthly*; • Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*; Ending Stocks: Estimates based on data from Table C1.

Figure C2. PADD I (East Coast) Propane/Propylene Stocks, January 1992 to Present

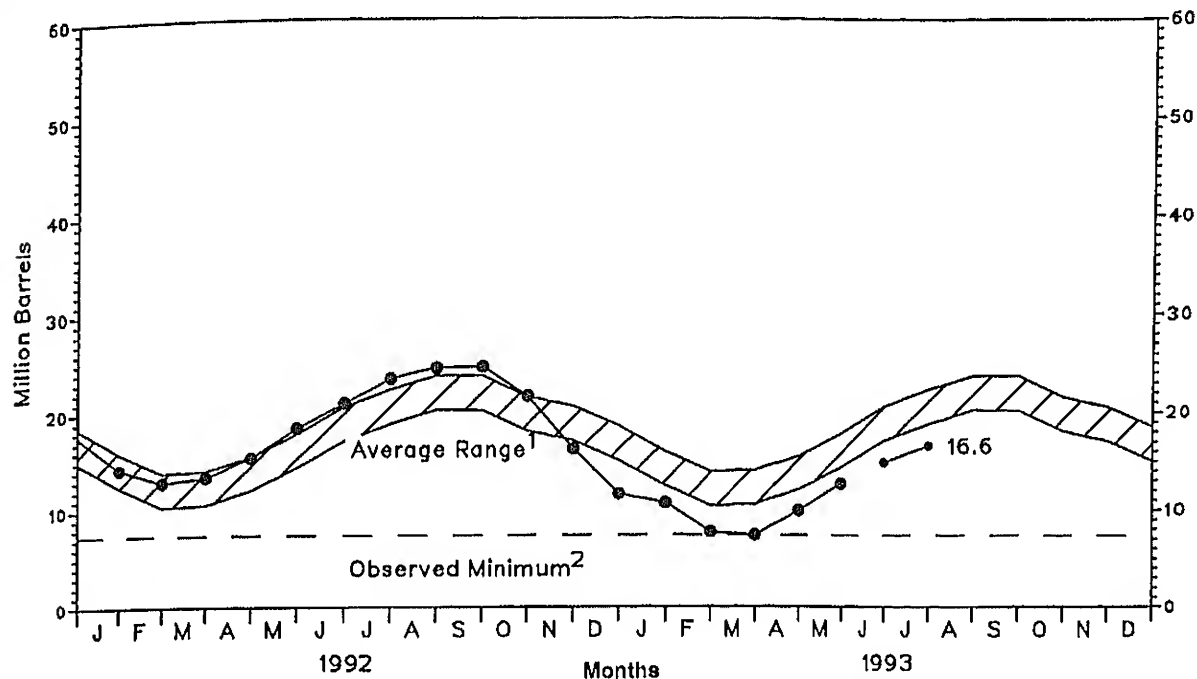


<sup>1</sup> Average level and width of average range are based on 3 years of monthly data: January 1990-December 1992. The seasonal pattern is based on 7 years of monthly data.

<sup>2</sup> The Observed Minimum for propane stocks is based on final monthly data for the last 36 month period and was 1.6 million barrels, occurring in March 1993.

Source: • Data for Ranges and Seasonal Patterns: 1985-1991, Energy Information Administration (EIA), *Petroleum Supply Annual*; 1992, EIA, *Petroleum Supply Monthly*; • Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*; Estimates based on data collected on Form EIA-807, "Propane Telephone Survey."

Figure C3. PADD II (Midwest) Propane/Propylene Stocks, January 1992 to Present

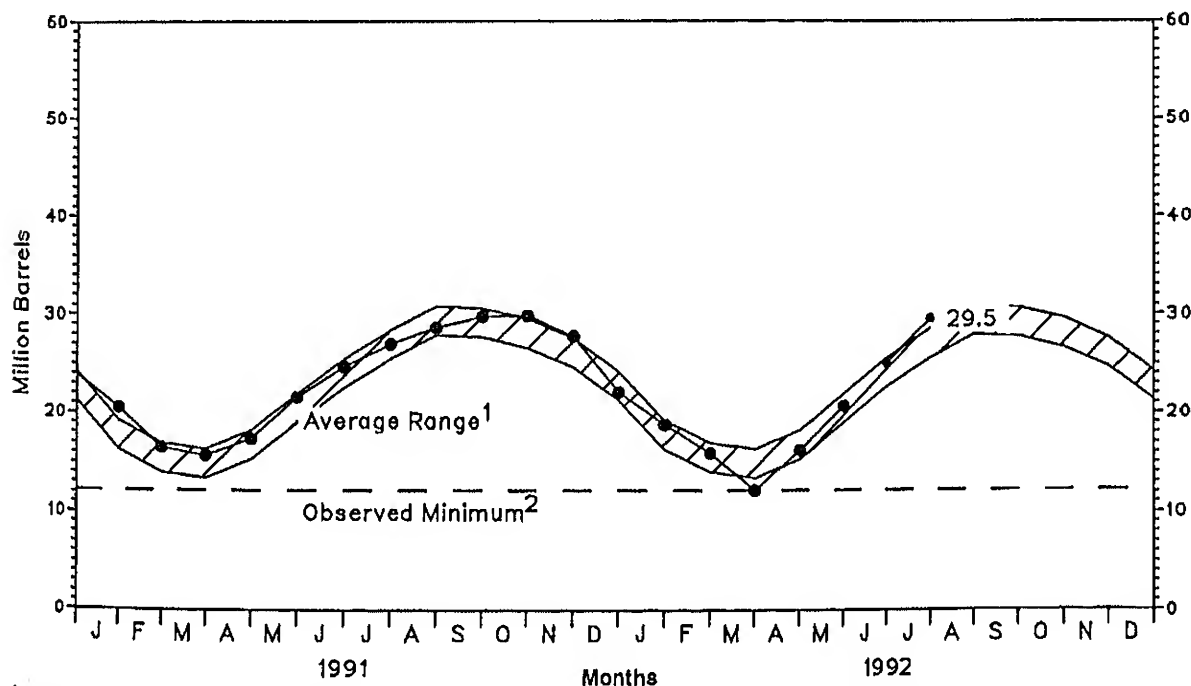


<sup>1</sup> Average level and width of average range are based on 3 years of monthly data: January 1990-December 1992. The seasonal pattern is based on 7 years of monthly data.

<sup>2</sup> The Observed Minimum for propane stocks is based on final monthly data for the last 36 month period and was 7.4 million barrels, occurring in March 1993.

Source: • Data for Ranges and Seasonal Patterns: 1985-1991, Energy Information Administration (EIA), *Petroleum Supply Annual* ; 1992, EIA, *Petroleum Supply Monthly*. • Monthly Data: 1992, EIA, *Petroleum Supply Annual* ; 1993, EIA, *Petroleum Supply Monthly* ; Estimates based on data collected on Form EIA -807, "Propane Telephone Survey."

Figure C4. PADD III (Gulf Coast) Propane/Propylene Stocks, January 1992 to Present



<sup>1</sup> Average level and width of average range are based on 3 years of monthly data: January 1990-December 1992. The seasonal pattern is based on 7 years of monthly data.

<sup>2</sup> The Observed Minimum for propane stocks is based on final monthly data for the last 36 month period and was 12.2 million barrels, occurring in March 1993.

Source: • Data for Ranges and Seasonal Patterns: 1985-1991, Energy Information Administration (EIA), *Petroleum Supply Annual* ; 1992, EIA, *Petroleum Supply Monthly*. • Monthly Data: 1992, EIA, *Petroleum Supply Annual* ; 1993, EIA, *Petroleum Supply Monthly* ; Estimates based on data collected on Form EIA -807, "Propane Telephone Survey."

Weekly Petroleum Status Report/Energy Information Administration

# Form EIA-807 Monthly Propane Report

## Explanatory Notes

### Background

The Form EIA-807, "Propane Telephone Survey," was implemented in April 1990 as the result of the 1989 propane supply disruption. The hardships experienced by propane users during the December 1989 cold-snap in the Northeast and Mid-Continent areas made the need for timely supply information imperative. During 1990, propane data was collected and provided to Congress and others upon request. Because of the overwhelming demand for continuous monitoring of propane supply, the *Winter Fuels Report* was implemented in September 1990. Data on other heating fuels (i.e., distillate fuel oil and natural gas) are also included. This report publishes weekly data on production, stocks, and imports of propane during the heating season (October through March). During the non-heating season (April through September) data are collected on end-of-month stocks only and are published in the *Weekly Petroleum Status Report*.

### Sample Frame

During the non-heating season, the Form EIA-807, "Propane Survey," collects data on end-of-month stocks of propane. The sample of companies that report monthly is representative of the universe of respondents that report on the surveys listed below:

Name

*Monthly Refinery Report*

*Monthly Bulk Terminal Report*

*Monthly Product Pipeline Report*

*Monthly Natural Gas Liquids Report*

data collections, telephone calls to respondents start on the third working day following the end of the report period.

### Resubmissions

Resubmissions are any changes to the originally submitted data that were either requested by the EIA or initiated by the respondent. A determination is made on whether to process the resubmissions based on the magnitude of the revision. Cell entries on publication tables are marked with an "R" for revised.

### Estimation and Imputation

After the company reports have been checked and entered into the EIA-807 data base, imputation is done for companies which have not yet responded. The imputed values are equal to the latest reported data for a particular reporting unit. Response rates are over 90 percent so very little imputation is done.

After the data files have been edited and corrected, aggregation is done for each geographic region. Estimation factors, which were derived from 1992 reported data, are then applied to each cell to generate published estimates.

### Response Rate

The response rate is generally 95 to 100 percent. Chronic nonrespondents and late filing respondents are contacted by telephone and reminded of their requirement to report. Nearly all of the major companies report on time. The nonresponse rate for the published estimate is usually between 1 percent and 2 percent.

### Propane Figures

The national inventory (stocks) graphs for propane include features to assist in comparing current inventory levels with past inventory levels and with judgments of critical levels.

Figures C1 through C4 provide the reader with actual inventory data compared to an "average range" for the most recent 3-year period running from January through December or from July through June. The ranges also reflect seasonal variation for the past 7 years.

The seasonal factors, which determine the shape of the upper and lower curves, are estimated with a seasonal adjustment technique developed at the Bureau of Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported inventory levels.) The intent of deseasonalization is to remove only annual variation from the data. Thus, deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data. The seasonal factors are updated annually in October, using the 7 most recent years' final monthly data.

seasonal factors are used to deseasonalize data from the most recent 3-year period (January-December or July-June). The range of the deseasonalized 36-month series determines the point of the "average range." The standard deviation of the deseasonalized 36 months is then calculated after adjusting for some data points. The upper curve of the "average range" is defined as average plus the seasonal factors plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of "average range" is twice the standard deviation. The ranges are updated every 6 months in April and October.

Lines labeled "observed minimum" on the stock graphs are the lowest inventory levels observed during the most recent 12-month period as published in the *Petroleum Supply Monthly*.

### Provisions Regarding Confidentiality of Information

The Office of Legal Counsel of the Department of Justice advised on March 20, 1991, that the Federal Energy Information Administration Act requires the Energy Information Administration to provide company-specific data to the Department of Justice, or to any Federal agency when requested for official use, which may include enforcement of Federal law. Information contained on this form may also be made available, upon request, to another component of the Department of Energy (DOE), to any Committee of Congress, the General

Accounting Office, or other Congressional agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order.

The information contained on this form will be kept confidential and not disclosed to the public to the extent that it satisfies the criteria for exemption under the Freedom of Information Act (FOIA), 5 U.S.C. section 552, the DOE regulations, 10 C.F.R. section 1004.11, implementing the FOIA, and the Trade Secrets ACT, 18 U.S.C. section 1905.

Upon receipt of a request for this information under the FOIA, the DOE shall make a final determination whether the information is exempt from disclosure in accordance with the procedures and criteria provided in the regulations. To assist us in this determination, respondents should demonstrate to the DOE that, for example, their information contains trade secrets or commercial or financial information whose release would be likely to cause substantial harm to their company's competitive position. A letter accompanying the submission that explains (on an element-by-element basis) the reasons why the information would be likely to cause the respondent substantial competitive harm if released to the public would aid in this determination. A new justification does not need to be provided each time information is submitted on the form, if the company has previously submitted a justification for that information and the justification has not changed.





# Glossary

**Barrel.** A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons.

**CIF (Cost, Insurance, Freight).** This term refers to a type of sale in which the buyer of the product agrees to pay a unit price that includes the f.o.b. value of the product at the point of origin plus all costs of insurance and transportation. This type of a transaction differs from a "Delivered" purchase, in that the buyer accepts the quantity as determined at the loading port (as certified by the Bill of Lading and Quality Report) rather than pay based on the quantity and quality ascertained at the unloading port. It is similar to the terms of an f.o.b. sale, except that the seller, as a service for which he is compensated, arranges for transportation and insurance.

**Cooling Degree-Days.** The number of degrees per day the daily average temperature is above 65 degrees F. The daily average temperature is the mean of the maximum and minimum temperature for a 24-hour period.

**Crude Oil.** A mixture of hydrocarbons that exists in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Lease condensate and drips are included but topped crude oil (residual) and other unfinished oils are excluded.

**Crude Oil Input.** The total crude oil put into processing units at refineries.

**Degree-Day Normals.** Simple arithmetic averages of monthly or annual degree-days over a long period of time (usually the 30-year period 1951-1980). These may be simple degree-day normals or population-weighted degree-day normals.

**Distillate Fuel Oil.** Includes No. 1, No. 2, and No. 4 fuel oils, and No. 1, No. 2, and No. 4 diesel fuels. These are light fuel oils used primarily for home heating, as a diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and for electric power generation. Distillate fuel oil is reported in the following sulfur categories: 0.05% sulfur and under and greater than 0.05% sulfur.

**FOB (Free On Board).** Pertains to a transaction whereby the seller makes the product available within an agreed on period at a given port at a given price; it is the responsibility of the buyer to arrange for the transportation and insurance. Distillate fuel oil is reported in the following sulfur categories: 0.05% sulfur and under and greater than 0.05% sulfur.

**Gas Oil.** European designation for No. 2 heating oil, and diesel fuel.

**Gross Inputs.** The crude oil, unfinished oils, and natural gas plant liquids put into atmospheric crude oil distillation units.

**Heating Degree-Days.** The number of degrees per day the daily average temperature is below 65 degrees F. The daily average temperature is the mean of the maximum and minimum temperature for a 24-hour period.

**Imports.** Unless otherwise specified in this report, refers to gross imports. Imports of minor products ("other oils"), include aviation gasoline, kerosene, unfinished oils, liquefied petroleum gases, plant condensate, petrochemical feedstocks, lube oils, waxes, special naphthas, coke, asphalt, and other miscellaneous oils.

**Jet Fuel.** Includes kerosene-type jet fuel and naphtha-type jet fuel. Kerosene-type jet fuel is a kerosene quality product used primarily for commercial turbojet and turboprop aircraft engines. Naphtha-type jet fuel is a product in the heavy naphthas range used primarily for military turbojet and turboprop aircraft engines.

**Liquefied Refinery Gases (LRG).** Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration, they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane/butylene, and isobutane. Excludes still gas.

**Motor Gasoline (Finished).** Includes reformulated gasoline, oxygenated gasoline, and other finished gasoline in the gasoline range. Blendstock is excluded until blending has been completed. Production data represent reformulated, oxygenated, and other finished gasoline. Import data consists of the three types of finished motor gasoline and blending components. Total motor gasoline stocks consist of the three types of finished motor gasoline and blending components. Finished motor gasoline stocks are total motor gasoline stocks minus blending components. The stock change used in the calculation of motor gasoline product supplied is the change in finished motor gasoline stocks.

**Operable Capacity.** The maximum amount of input that can be processed by a crude oil distillation unit in a 24-hour period, making allowances for processing limitations due to types and grades of inputs, limitations of downstream facilities, scheduled and unscheduled downtimes, and environmental constraints. Includes any shutdown capacity that could be placed in operation within 90 days.

**Petroleum Administration for Defense Districts (PADD).** Five geographical areas into which the nation was divided by the Petroleum Administration for Defense for purposes of administration. These PADDs include the States listed below:

## PADD I:

**Padd IX:** Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

**Padd IY:** Delaware, District of Columbia, Maryland, New Jersey, New York, and Pennsylvania.

**Padd IZ:** Florida, Georgia, North Carolina, South Carolina, Virginia, and West Virginia.

**PADD II:** Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Oklahoma, South Dakota, Tennessee, and Wisconsin.

**PADD III:** Alabama, Arkansas, Louisiana, Mississippi, New Mexico, and Texas.

**PADD IV:** Colorado, Idaho, Montana, Utah, and Wyoming.

**PADD V:** Alaska, Arizona, California, Hawaii, Nevada, Oregon, Washington.

**Population-Weighted Degree-Days.** Heating or cooling degree-days weighted by the population of the area in which the degree-days are recorded. To compute national population-weighted degree-days, the Nation is divided into nine Census regions comprised of from three to eight States which are assigned weights based on the ratio of the population of the region to the total population of the Nation. Degree-day readings for each region are multiplied by the corresponding population weight for each region and these products are then summed to arrive at the national population weighted degree-day figure.

**Processing Gain.** The volumetric amount by which total output is greater than input for a given period of time. This difference is due to the processing of crude oil into products which, in total, have a lower specific gravity than the crude oil processed.

**Products Supplied.** A value calculated for specific products which is equal to domestic production plus net imports (imports less exports), less the net increase in primary stocks. Total products supplied is calculated as inputs to refineries, plus estimated refinery gains, plus other hydrocarbon input, plus product imports, less product exports, less the net increase in product stocks. Values shown for "Other Oils" product supplied are the difference between total product supplied and product supplied values for specified products. Other oils product supplied incorporates crude oil product supplied and reclassified product adjustment.

**Refiner Acquisition Cost of Crude Oil.** The average price paid by refiners for crude oil booked into their refineries in accordance with accounting procedures generally accepted and consistently and historically applied by the refiners concerned. Domestic crude oil is that oil produced in the United States or from the outer continental shelf as defined in 43 USC 1131. Imported crude oil is any crude oil which is not domestic oil. The composite is the weighted average price of domestic and imported crude oil. Prices do not include the price of crude oil for the SPR.

**Refinery Capacity Utilization.** Ratio of the total amount of crude oil, unfinished oils, and natural gas plant liquids run through crude oil distillation units to the operable capacity of these units. In the period 1979-1984 the refinery capacity utilization for all U.S. refineries ranged between 87 percent and 65 percent. The ratio for an individual refinery may fluctuate much more depending on the type of crude and other raw materials processed, the types of products produced, and the operating conditions of the refinery.

**Residual Fuel Oil.** Includes No. 5 and No. 6 fuel oils which are heavy oils used primarily for electric power generation, for industrial and commercial space heating, as a ship fuel, and for various industrial uses.

**Retail Motor Gasoline Prices.** Motor gasoline prices calculated each month by the Bureau of Labor Statistics (BLS) in conjunction with the construction of the Consumer Price Index (CPI). These prices are collected in 85 urban areas selected to represent all urban consumers -- about 80 percent of the total U.S. population. The service stations are selected initially, and on a replacement basis, in such a way that they represent the purchasing habits of the CPI population. Service stations in the current sample include those providing all types of service (i.e., full-, mini-, and self-service).

**Stock Change (Refined Products).** Component of Product Supplied calculation shown on U.S. Petroleum Balance. The product stock change shown on the U.S. Petroleum Balance Sheet for the current 4-week period is calculated in the following way; an average daily stock change is calculated for major refined products (i.e., all actual reported stocks); this stock change is added to an estimate for minor product stock change based on historical monthly data; a daily average stock change for refined product stocks for the 4-week period is then calculated. To calculate minor product stock change, the stock levels shown for other oils in the stock section of the balance sheet are used. These other oils stock levels are derived by: 1) computing an average daily rate of stock change for each month based on monthly data for the past 6 years; 2) using this daily rate and the minor stock levels from the most recent monthly publication to estimate the minor product stock level for the current period.

**Stocks.** For individual products in the WPSR, quantities held at refineries, in pipelines, and at bulk terminals which have a capacity of 50,000 barrels or more, and in transit thereto. Stocks held by product retailers and resellers, as well as tertiary stocks held at the point of consumption, are excluded. Stocks of individual products held at gas processing plants are excluded from individual product estimates but included in "Other Oils" estimates and "Total."

**Unaccounted-for Crude Oil.** A term which appears in U.S. Petroleum Balance Sheet. It reconciles the difference between data (or estimates) about supply and data (or estimates) about disposition. Its value can be positive or negative since it is a balancing term. As it appears in the monthly publications, it reflects the accuracy of the reported data. Because the unaccounted-for crude oil figure reflects the accuracy of reported and estimated figures, one would expect the figure to be larger in balances using preliminary or estimated data and smaller in balances using final data. In fact, the published figures confirm this expectation. In the WPSR, 4-week averages for the previous year are interpolated from final monthly data, so that the unaccounted-for crude oil value for the previous year is considerably smaller than that for the current period.

**Unfinished Oils.** Includes all oils requiring further processing, except those requiring only mechanical blending.

**United States.** For the purpose of the report, the 50 States and the District of Columbia. Data for the Virgin Islands, Puerto Rico, and other U.S. territories are not included in the U.S. Totals.

# Electronic Publishing System (EPUB)

## User Instructions

EPUB is an electronic publishing system maintained by the Energy Information Administration of the U.S. Department of Energy. EPUB allows the general public to electronically access selected energy data from many of EIA's statistical reports. The system is a menu-driven, bulletin board type system with extensive online help capabilities that can be accessed free of charge 24 hours a day by a terminal or PC with an asynchronous modem. (EPUB will be taken down briefly at midnight for backup.)

### FIGURING YOUR PC SOFTWARE

Users must provide the following information to their communications software in order to successfully access the EPUB system. Consult your communications software documentation for information on how to correctly configure your software.

Communications Parameters:

BAUD RATE: 300 - 2400 bps

DATA BITS: 8

STOP BITS: 1

PARITY: NONE

FLOW CONTROL: FULL

TERMINAL TYPE: *examples: ANSI, ANSI-BBS, VT100*

### TELEPHONE NUMBER

If your communications software and/or hardware has been configured, you can access EPUB by dialing (202) 586-2557.

### USING EPUB

Once a connection to the system has been made, some users may find that the menu-driven instructions and the online help capabilities provide enough information to effectively use EPUB. If needed, more extensive information may be found in the *EPUB Users Guide*, which is available online from the EPUB system or from:

National Energy Information Center, EI-231

Energy Information Administration

Crystal Building, Room 1F-048

Washington, DC 20585

(202) 586-8800

Hours: 9 a.m. to 5 p.m. Eastern Time, Monday through Friday

For communications device for the hearing-impaired only:

(202) 586-1181. Hours: 9 a.m. to 5 p.m. Eastern Time, Monday through Friday.

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### WHAT EPUB PROVIDES STATISTICAL INFORMATION, AS WELL AS

*Weekly Petroleum Status Report*, updated on Wednesdays (Thursday)

*Petroleum Supply Monthly*, updated on the 20th of the month

*Crude Oil Production*, updated approximately 15 working days after the end of the month

*Refining Fuel Data*, (April through September) updated the 2nd week of the month

*Petroleum Marketing Monthly*, updated on the 20th of the month

*Winter Fuels Report*, (October through March) updated on Wednesday

*Natural Gas Monthly*, updated on the 20th of the month

*Weekly Coal Production*, updated on Fridays at 5 p.m.

*Quarterly Coal Report*, updated 60 days after the end of the quarter

*Electric Power Monthly*, updated on the 1st of the month

**Weekly Petroleum Status Report**